

CXM2785TP CXN2085TP

3WAY COMBINATION UNIT



Owner's Instructions

AA68-02634B-00(ENG)

Warning! Important Safety Instructions

CAUTION
RISK OF ELECTRIC SHOCK DO NOT OPEN

CAUTION: TO REDUCE THE RISK OF ELECTRIC SHOCK, DO NOT REMOVE COVER (OR BACK). NO USER SERVICEABLE PARTS INSIDE. REFER SERVICING TO QUALIFIED SERVICE PERSONNEL.



This symbol indicates high voltage is present inside. It is dangerous to make any kind of contact with any inside part of this product.



This symbol alerts you that important literature concerning operation and maintenance has been included with this product.

Note to CATV system installer: This reminder is provided to call CATV system installer's attention to Article 820-40 of the National Electrical Code (Section 54 of Canadian Electrical Code, Part I), that provides guidelines for proper grounding and, in particular, specifies that the cable ground shall be connected to the grounding system of the building as close to the point of cable entry as practical.

Caution: FCC/CSA regulations state that any unauthorized changes or modifications to this equipment may void the user's authority to operate it.

Caution: To prevent electric shock, match the wide blade of plug to the wide slot, and fully insert the plug.

Attention: pour eviter les chocs electriques, introduire la lame le plus large de la fiche dans la borne correspondante de la prise et pousser jusqu'au fond.

Important: One Federal Court has held that unauthorized recording of copyrighted TV programs is an infringement of U.S. copyright laws. Certain Canadian programs may also be copyrighted and any unauthorized recording in whole or in part may be in violation of these rights.

To prevent damage which may result in fire or electric shock hazard, do not expose this appliance to rain or moisture.

Thank You for Choosing Samsung

Thank you for choosing Samsung! Your new Samsung TV represents the latest in television technology. We designed it with easy-to-use on-screen menus and closed captioning capabilities, making it one of the best products in its class. We are proud to offer you a product that will provide convenient, dependable service and enjoyment for years to come.

Important Safety Information

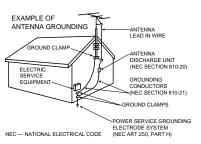
- Always be careful when using your TV receiver. To reduce the risk of fire, electrical shock, and other injuries, keep these safety precautions in mind when installing, using, and maintaining your machine.
- Read all safety and operating instructions before operating your TV.
- Keep the safety and operating instructions for future reference.
- Heed all warnings on the TV receiver and in the operating instructions.
- Follow all operating and use instructions.
- Unplug the TV receiver from the wall outlet before cleaning. Use a damp cloth; do not use liquid or aerosol cleaners.
- Never add any attachments and/or equipment without approval of the manufacturer. Such additions can increase the risk of fire, electric shock, or other personal injury.
- Do not use the TV receiver where contact with or immersion in water is a possibility, such as near bath tubs, sinks, washing machines, swimming pools, etc.
- Do not place the TV on an unstable cart, stand, tripod, bracket, or table where it can fall. A falling TV can cause serious injury to a child or adult, and serious damage to the appliance. Use only with a cart, stand, tripod, bracket, or table recommended by the manufacturer or sold with the TV. Follow the manufacturer's instructions when mounting the unit, and use a mounting accessory recommended by the manufacturer. Move the TV and cart with care. Quick stops, excessive force, and uneven surfaces can make the unit and cart unsteady and likely to overturn.



- Provide ventilation for the TV receiver. The unit is designed with slots in the cabinet for ventilation to protect it from overheating. Do not block these openings with any object, and do not place the TV receiver on a bed, sofa, rug, or other similar surface. Do not place it near a radiator or heat register. If you place the TV receiver on a rack or bookcase, ensure that there is adequate ventilation and that you've followed the manufacturer's instructions for mounting.
- Operate your TV receiver only from the type of power source indicated on the marking label.
 If you are not sure of the type of power supplied to your home, consult your appliance dealer or local power company.
- Use only a grounded or polarized outlet. For your safety, this TV is equipped with a polarized alternating current line plug having one blade wider than the other. This plug will fit into the power outlet only one way. If you are unable to insert the plug fully into the outlet, try reversing the plug. If the plug still does not fit, contact your electrician to replace your outlet.

Safety 1

- Protect the power cord. Power supply cords should be routed so that they won't be walked on or pinched by objects placed on or against them. Pay particular attention to cords at plugs, convenience receptacles, and the point where they exit from the unit.
- Unplug the TV from the wall outlet and disconnect the antenna or cable system during a lightning storm or when left unattended and unused for long periods of time. This will prevent damage to the unit due to lightning and power-line surges.
- Avoid overhead power lines. An outside antenna system should not be placed in the vicinity
 of overhead power lines or other electric light or power circuits or where it can fall into such
 power lines or circuits. When installing an outside antenna system, be extremely careful to
 keep from touching the power lines or circuits. Contact with such lines can be fatal.
- Do not overload the wall outlet or extension cords. Overloading can result in fire or electric shock.
- Do not insert anything through the openings in the unit, where they can touch dangerous voltage points or damage parts. Never spill liquid of any kind on the TV.
- Ground outdoor antennas. If an outside antenna or cable system is connected to the TV, be sure the antenna or cable system is grounded so as to provide some protection against voltage surges and built-up static charges. Section 810 of the National Electrical Code, ANSI/NFPA No.70-1984, provides information about proper grounding of the mast and supporting structure, grounding of the lead-in wire to an antenna discharge unit, size of grounding conductors, location of antenna discharge unit, connection to grounding electrodes, and requirements for the grounding electrode.



- Do not attempt to service the TV yourself. Refer all servicing to qualified service personnel.
 Unplug the unit from the wall outlet and refer servicing to qualified service personnel under the following conditions:
 - when the power-supply cord or plug is damaged
 - if liquid has been spilled on the unit or if objects have fallen into the unit
 - if the TV has been exposed to rain or water
 - if the TV does not operate normally by following the operating instructions
 - if the TV has been dropped or the cabinet has been damaged
 - when the TV exhibits a distinct change in performance
- If you make adjustments yourself, adjust only those controls that are covered by the operating instructions. Adjusting other controls may result in damage and will often require extensive work by a qualified technician to restore the TV to normal.
- When replacement parts are required, be sure the service technician uses replacement parts
 specified by the manufacturer or those that have the same characteristics as the original part.
 Unauthorized substitutions may result in additional damage to the unit.
- Upon completion of any service or repairs to this TV, ask the service technician to perform safety checks to determine that the TV is in a safe operating condition.

This device complies with part 15 of the FCC Rules. Operation is subject to the following two conditions:

- (1) This device may not cause harmful interference, and
- (2) This device must accept any interference that may cause undesired operation.

This television receiver provides display of television closed captioning in accordance with §15.119 of the FCC rules.

2 SAFETY

Contents

Chapter 1:	Your New 3Way Combination Unit 1.1
	List of Features
	Familiarizing Yourself with The 3way Combination Unit
	Front Panel Buttons
	Front/Side Panel Jacks 1.3 Rear Panel Jacks 1.4
	Remote Control (TV Function Buttons) 1.5
	Remote Control (DVD Function Buttons)
	Remote Control (VCR Function Buttons)
Chapter 2:	Installation 2.1
	Connecting VHF and UHF Antennas
	Antennas with 300-ohm Flat Twin Leads
	Antennas with 75-ohm Round Leads
	Separate VHF and UHF Antennas
	Connecting Cable TV 2.2 Cable without a Cable Box 2.2
	Connecting to a Cable Box that Descrambles All Channels 2.2
	Connecting to a Cable Box that Descrambles
	some Channels
	Connecting a Second VCR to Record from the TV
	Connecting a Camcorder
	Connecting an Audio System
	Installing Batteries in the Remote Control
Chapter 3:	TV Operation
	Turning the TV On and Off
	Viewing the Menus and On-Screen Displays
	Viewing the Menus
	Viewing the Display 3.1 Selecting a Menu Language 3.2
	Memorizing the Channels
	Selecting the Video Signal-source
	Storing Channels in Memory (Automatic Method)
	Adding and Erasing Channels (Manual Method)
	Changing Channels. 3.6
	Using the Channel Buttons. 3.6 Directly Accessing Channels 3.6
	Using the Pre-CH Button to select the Previous Channel
	Adjusting the Volume
	Using Mute
	Setting the Clock
	Customizing the Picture
	Changing the Color Tone 3.10 Changing the Screen Size 3.11
	Fine Tuning Channels
	Digital Noise Reduction
	Tilt
	Customizing the Sound
	Using Automatic Sound Settings
	Choosing a Multi-Channel Soundtrack (MTS)
	Setting the Clock. 3.19
	Setting the On/Off Timer
	Setting the Sleep Timer
	Viewing Closed Captions
	Using the V-Chip
	How to Enable/Disable the V-Chip
	How to Enable Disable the Verify 3.28 How to Set up Restrictions Using the "TV guidelines" 3.28
	How to Set up Restrictions using the MPAA Ratings:
	G, PG, PG-13, R, NC-17, X
	How to Reset the TV after the V-Chip Blocks a Channel ("Emergency Escape")
Chapter 4:	DVD Operation4.1
	Playing a Disc4.1
	Playback 4.1
	Stopping Playback
	Pausing Playback 4.1
	Step Motion Playback (Except CD)
	Slow Motion Playback (Except CD)
	CONTENT

CONTENTS

	Using the Search and Skip Functions	. 4.
	Searching through a Chapter or Track.	4.
	Skipping Tracks	
	Using the Display Function.	
	When Playing a DVD	
	When Playing a CD/VCD	
	Repeat Play	
	Program Play and Random Play	
	Program Playback	
	Random Playback	
	Using the Disc View Function (VCD)	
	Track View/Index View	
	Selecting the Audio Language	
	Using the MENU Button (When playing a DVD)	1 1
	Selecting the Subtitle Language.	
	Using the SUBTITLE button.	
	Using the MENU Button (When playing a DVD)	
	Using the Master Volume Control Function	4.1
	Changing the Camera Angle	4.1
	Using the Zoom Function (DVD/VCD)	
	Using the Bookmark Function	4.1
	Using the Bookmark Function (DVD/VCD)	4.1
	Recalling a Marked Scene	4.1
	Clearing a Bookmark	
	MP3 Play	
	MP3 Play Function	
	Program/Random playback	
	CD-R MP3 discs	
	Setting up the Language Features	
	Using the Player Menu	
	Using the Disc Menu Language	
	Setting up the Parental Control	
	Setting up the Audio Options	
Chapter 5:	VCR Operation	5 .1
•	Inserting and Ejecting a Video Cassette Tape.	
	Playing a Pre-Recorded Video Cassette Tape	5
	Playing the Tape	
	Pausing.	
	Using Picture Search	5.:
	Using Picture Search. Using Automatic Tracking	
	Using Picture Search. Using Automatic Tracking Using the Time Counter.	5.:
	Using Automatic Tracking	5.
	Using Automatic Tracking Using the Time Counter	5. 5. 5.
	Using Automatic Tracking Using the Time Counter Using Memory Stop	5. 5. 5.
	Using Automatic Tracking Using the Time Counter Using Memory Stop Using PPLUS Recording TV Programs As You Watch Recording .	5. 5. 5. 5.
	Using Automatic Tracking Using the Time Counter Using Memory Stop Using PPLUS Recording TV Programs As You Watch Recording. Editing While Recording.	5. 5. 5. 5. 5.
	Using Automatic Tracking Using the Time Counter Using Memory Stop Using PPLUS Recording TV Programs As You Watch Recording. Editing While Recording. Using Advanced Recording Features	5. 5. 5. 5. 5.
	Using Automatic Tracking Using the Time Counter Using Memory Stop Using PPLUS Recording TV Programs As You Watch Recording Editing While Recording Using Advanced Recording Features Using One-Touch Recording.	5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5
	Using Automatic Tracking Using the Time Counter Using Memory Stop Using PPLUS Recording TV Programs As You Watch Recording. Editing While Recording. Using Advanced Recording Features Using One-Touch Recording. Recording at a Later Time	5.: 5.: 5.: 5.: 5.: 5.:
	Using Automatic Tracking Using the Time Counter Using PPLUS Recording TV Programs As You Watch Recording. Editing While Recording. Using Advanced Recording Features Using One-Touch Recording. Recording at a Later Time Using Program Review	5. 5. 5. 5. 5. 5. 5. 5. 5. 5.
	Using Automatic Tracking Using the Time Counter Using PPLUS Recording TV Programs As You Watch Recording. Editing While Recording. Using Advanced Recording Features Using One-Touch Recording. Recording at a Later Time Using Program Review Using True Repeat.	5. 5. 5. 5. 5. 5. 5. 5. 5. 5. 5. 5. 5. 5. 5. 5. 5. 5. 5. 5. 5. 5. 5. 5. 5. 5. 5. 5. . 5. . 5.
	Using Automatic Tracking Using the Time Counter Using Memory Stop Using PPLUS Recording TV Programs As You Watch Recording. Editing While Recording. Using Advanced Recording Features Using One-Touch Recording. Recording at a Later Time Using True Repeat. Using True Repeat.	5. 5. 5. 5. 5. 5. 1. 5. 1. 5. 1. 5. 1. 5. 1. 5. 1. 5. 1. 5. 1. 5. 1. 5. 1. 5. 1. 5. 1. 5. 1. 5. 1. 5. 1. 5. 1. 5. 1. 5. 1. 5. 1. 5. 1. 5. 1. 5. 1. 5. 1. 5. 1. 5. 1. 5. 1. 5. 1. 5. 1. 5. 1. 5. 1. 5. 1. 5. 1. 5. 1. 5. 1. 5. 1. 5. 1. 5. 1. 5. 1. 5. 1. 5. 1. 5. 1. 5. 1. 5. 1. 5. 1. 5. 1. 5. 1. 5. 1. 5. 1. 5. 1. 5. 1. 5. 1. 5. 1. 5. 1. 5. 1. 5. 1. 5. 1. 5. 1. 5. 1. 5. 1. 5. 1. 5. 1. 5. 1. 5. 1. 5. 1. 5. 1. 5. 1. 5. 1. 5. 1. 5. 1. 5. 1. 5. 1. 5. 1. 5. 1. 5. 1. 5. 1. 5. 1. 5. 1. 5. 1. 5. 1. 5. 1. 5. 1. 5. 1. 5. 1. 5. 1. 5. 1. 5. 1. 5. 1. 5. 1. 5. 1. 5. 1. 5. 1. 5. 1. 5. 1. 5. 1. 5. 1. 5. 1. 5. 1. 5. 1. 5. 1. 5. 1. 5. 1. 5. 1. 5. 1. 5. 1. 5. 1. 5. 1. 5. 1. 5. 1. 5. 1. 5. 1. 5. 1. 5. 1. 5. 1. 5. 1. 5. 1. 5. 1. 5. 1. 5. 1. 5. 1. 5. 1. 5. 1. 5. 1. 5. 1. 5. 1. 5. 1. 5. 1. 5. 1. 5. 1. 5. 1. 5. 1. 5. 1. 5. 1. 5. 1. 5. 1. 5. 1. 5. 1. 5. 1. 5. 1. 5. 1. 5. 1. 5. 1. 5. 1. 5. 1. 5. 1. 5. 1. 5. 1. 5. 1. 5. 1. 5. 1. 5. 1. 5. 1. 5. 1. 5. 1. 5. 1. 5. 1. 5. 1. 5. 1. 5. 1. 5. 1. 5. 1. 5. 1. 5. 1. 5. 1. 5. 1. 5. 1. 5. 1. 5. 1. 5. 1. 5. 1. 5. 1. 5. 1. 5. 1. 5. 1. 5. 1. 5. 1. 5. 1. 5. 1. 5. 1. 5. 1. 5. 1. 5. 1. 5. 1. 5. 1. 5. 1. 5. 1. 5. 1. 5. 1. 5. 1. 5. 1. 5. 1. 5. 1. 5. 1. 5. 1. 5. 1. 5. 1. 5. 1. 5. 1. 5. 1. 5. 1. 5. 1. 5. 1. 5. 1. 5. 1. 5. 1. 5. 1. 5. 1. 5. 1. 5. 1. 5. 1. 5. 1. 5. 1. 5. 1. 5. 1. 5. 1. 5. 1. 5. 1. 5. 1. 5. 1. 5. 1. 5. 1. 5. 1. 5. 1. 5. 1. 5. 1. 5. 1. 5. 1. 5. 1. 5. 1. 5. 1. 5. 1. 5. 1. 5. 1. 5. 1. 5. 1. 5. 1. 5. 1. 5. 1. 5. 1. 5. 1. 5. 1. 5. 1. 5. 1. 5. 1. 5. 1. 5. 1. 5. 1. 5. 1. 5. 1. 5. 1. 5. 1. 5. 1. 5. 1. 5. 1. 5. 1. 5. 1. 5. 1. 5. 1. 5. 1. 5. 1. 5. 1. 5. 1. 5. 1. 5. 1. 5. 1. 5. 1. 5. 1. 5. 1. 5. 1. 5. 1. 5. 1. 5. 1. 5. 1. 5. 1. 5. 1. 5. 1. 5. 1. 5. 1. 5. 1. 5. 1. 5. 1. 5. 1. 5. 1. 5. 1. 5. 1. 5. 1. 5. 1. 5. 1. 5. 1. 5. 1. 5. 1. 5. 1. 5. 1. 5. 1. 5. 1. 5. 1. 5. 1. 5. 1. 5. 1. 5. 1. 5. 1. 5. 1. 5. 1. 5. 1. 5. 1. 5. 1. 5. 1. 5. 1. 5. 1. 5. 1. 5. 1. 5. 1. 5. 1. 5. 1. 5. 1. 5. 1. 5. 1. 5. 1. 5. 1. 5. 1. 5. 1. 5. 1. 5. 1. 5. 1. 5. 1. 5. 1. 5. 1. 5. 1. 5. 1. 5. 1. 5. 1. 5. 1. 5. 1. 5. 1. 5. 1. 5. 1. 5. 1. 5. 1. 5. 1. 5.
	Using Automatic Tracking Using the Time Counter Using PPLUS Recording TV Programs As You Watch Recording. Editing While Recording. Using Advanced Recording Features Using One-Touch Recording. Recording at a Later Time Using True Repeat. Using Block Repeat. Using Block Repeat. MTS (Multi-Channel Television sound) System.	5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5
	Using Automatic Tracking Using the Time Counter Using PPLUS Recording TV Programs As You Watch Recording Editing While Recording. Using Advanced Recording Features Using Advanced Recording Features Using One-Touch Recording. Recording at a Later Time Using Program Review Using True Repeat. Using Block Repeat MTS (Multi-Channel Television sound) System Selecting the MTS System	5.1 5.1 5.1 5.1 5.1 5.1 5.1 5.1
	Using Automatic Tracking Using the Time Counter Using Memory Stop Using PPLUS Recording TV Programs As You Watch Recording. Editing While Recording. Using Advanced Recording Features Using One-Touch Recording. Recording at a Later Time Using Program Review Using True Repeat. Using Block Repeat. MTS (Multi-Channel Television sound) System. Selecting the MTS System. MTS Recording/Monitor Mode	5.1 5.1 5.1 5.1 5.1 5.1 5.1 5.1
	Using Automatic Tracking Using the Time Counter Using Memory Stop Using PPLUS Recording TV Programs As You Watch Recording. Editing While Recording. Using Advanced Recording Features Using One-Touch Recording. Recording at a Later Time Using True Repeat. Using True Repeat. Using Block Repeat MTS (Multi-Channel Television sound) System Selecting the MTS System MTS Recording/Monitor Mode Video Dubbing	5.15.10 5.11 5.11 5.11 5.11 5.11 5.11 5.
	Using Automatic Tracking Using the Time Counter Using PPLUS Recording TV Programs As You Watch Recording. Editing While Recording. Using Advanced Recording Features Using Advanced Recording Teatures Using One-Touch Recording. Recording at a Later Time Using Program Review Using True Repeat Using Block Repeat Using Block Repeat MTS (Multi-Channel Television sound) System. Selecting the MTS System MTS Recording/Monitor Mode Video Dubbing. Making the Connections.	5.1 5.1 5.1 5.1 5.1 5.1 5.1 5.1
	Using Automatic Tracking Using the Time Counter Using Memory Stop Using PPLUS Recording TV Programs As You Watch Recording Editing While Recording. Using Advanced Recording Features Using One-Touch Recording. Recording at a Later Time Using Program Review Using True Repeat. Using Block Repeat MTS (Multi-Channel Television sound) System Selecting the MTS System MTS Recording/Monitor Mode Video Dubbing Making the Connections. Video Dubbing	5.10 5.11 5.11 5.11 5.11 5.11 5.11 5.11
	Using Automatic Tracking Using the Time Counter Using Memory Stop Using PPLUS Recording TV Programs As You Watch Recording. Editing While Recording. Using Advanced Recording Features Using One-Touch Recording. Recording at a Later Time Using Program Review Using True Repeat. Using Block Repeat. MTS (Multi-Channel Television sound) System. Selecting the MTS System. MTS Recording/Monitor Mode Video Dubbing Making the Connections. Video Dubbing Using Special Playback Features	5.10 5.11 5.11 5.11 5.11 5.11 5.11 5.11
	Using Automatic Tracking Using the Time Counter Using Memory Stop Using PPLUS Recording TV Programs As You Watch Recording Editing While Recording. Using Advanced Recording Features Using One-Touch Recording. Recording at a Later Time Using Program Review Using True Repeat. Using Block Repeat MTS (Multi-Channel Television sound) System Selecting the MTS System MTS Recording/Monitor Mode Video Dubbing Making the Connections. Video Dubbing	5.1 5.1 5.1 5.1 5.1 5.1 5.1 5.1 5.1 5.1
	Using Automatic Tracking Using the Time Counter Using Memory Stop Using P.PLUS Recording TV Programs As You Watch Recording. Editing While Recording. Using Advanced Recording Features Using One-Touch Recording. Recording at a Later Time Using Program Review Using True Repeat Using Block Repeat Using Block Repeat MTS (Multi-Channel Television sound) System Selecting the MTS System. MTS (Multi-Channel Television Mode Video Dubbing Making the Connections. Video Dubbing Using Special Playback Features Frame Advance	5.1 5.1 5.1 5.1 5.1 5.1 5.1 5.1 5.1 5.1
hapter 6:	Using Automatic Tracking Using the Time Counter Using Memory Stop Using P.PLUS Recording TV Programs As You Watch Recording. Editing While Recording. Using Advanced Recording Features Using One-Touch Recording. Recording at a Later Time Using Program Review Using True Repeat Using Block Repeat Using Block Repeat MTS (Multi-Channel Television sound) System Selecting the MTS System. MTS (Multi-Channel Television Mode Video Dubbing Making the Connections. Video Dubbing Using Special Playback Features Frame Advance	5.1. 5.1. 5.1. 5.1. 5.1. 5.1. 5.1. 5.1.
Chapter 6:	Using Automatic Tracking Using the Time Counter Using Memory Stop Using PPLUS Recording TV Programs As You Watch Recording TW Programs As You Watch Recording Editing While Recording. Using Advanced Recording Features Using One-Touch Recording. Recording at a Later Time Using Program Review Using True Repeat. Using Block Repeat. MTS (Multi-Channel Television sound) System Selecting the MTS System MTS (Multi-Channel Television Mode Video Dubbing Making the Connections. Video Dubbing Using Special Playback Features Frame Advance Slow motion.	5.1. 5.1. 5.1. 5.1. 5.1. 5.1. 5.1. 5.1.
Chapter 6:	Using Automatic Tracking Using the Time Counter Using Memory Stop Using PPLUS Recording TV Programs As You Watch Recording. Editing While Recording. Using Advanced Recording Features Using One-Touch Recording. Recording at a Later Time Using Program Review Using True Repeat. Using Block Repeat. MTS (Multi-Channel Television sound) System. Selecting the MTS System. MTS (Recording/Monitor Mode Video Dubbing Making the Connections. Video Dubbing Using Special Playback Features Frame Advance Slow motion. Troubleshooting Identifying TV Problems	5.1. 5.1. 5.1. 5.1. 5.1. 5.1. 5.1. 5.1.
hapter 6:	Using Automatic Tracking Using the Time Counter Using Memory Stop Using PPLUS Recording TV Programs As You Watch Recording. Editing While Recording. Using Advanced Recording Features Using One-Touch Recording. Recording at a Later Time Using Program Review Using True Repeat Using Block Repeat Using Block Repeat MTS (Multi-Channel Television sound) System. Selecting the MTS System MTS Recording/Monitor Mode Video Dubbing. Making the Connections. Video Dubbing Using Special Playback Features Frame Advance. Slow motion. Troubleshooting. Identifying TV Problems Identifying TV Problems Identifying DVD Problems	5.1. 5.1. 5.1. 5.1. 5.1. 5.1. 5.1. 5.1.
•	Using Automatic Tracking Using the Time Counter Using Memory Stop Using P.PLUS Recording TV Programs As You Watch Recording. Editing While Recording. Using Advanced Recording Features Using One-Touch Recording. Recording at a Later Time Using Program Review Using True Repeat Using Block Repeat Using Block Repeat MTS (Multi-Channel Television sound) System Selecting the MTS System. MTS (Multi-Channel Television sound) Osystem Selecting the MTS System. MTS Recording/Monitor Mode Video Dubbing Waking the Connections. Video Dubbing Using Special Playback Features Frame Advance. Slow motion Troubleshooting Identifying TV Problems Identifying DVD Problems Identifying VCR Problems.	5.1. 5.1. 5.1. 5.1. 5.1. 5.1. 5.1. 5.1.
•	Using Automatic Tracking Using the Time Counter Using Memory Stop Using P.PLUS Recording TV Programs As You Watch Recording. Editing While Recording. Using Advanced Recording Features Using One-Touch Recording. Recording at a Later Time Using Program Review Using True Repeat Using Block Repeat Using Block Repeat MTS (Multi-Channel Television sound) System Selecting the MTS System. MTS (Multi-Channel Television sound) Osystem Selecting the MTS System. MTS Recording/Monitor Mode Video Dubbing Waking the Connections. Video Dubbing Using Special Playback Features Frame Advance. Slow motion Troubleshooting Identifying TV Problems Identifying DVD Problems Identifying VCR Problems.	5.1. 5.1. 5.1. 5.1. 5.1. 5.1. 5.1. 5.1.
•	Using Automatic Tracking Using the Time Counter Using Memory Stop Using PPLUS Recording TV Programs As You Watch Recording. Editing While Recording. Using Advanced Recording Features Using One-Touch Recording. Recording at a Later Time Using Program Review Using True Repeat. Using Block Repeat. MTS (Multi-Channel Television sound) System Selecting the MTS System MTS (Multi-Channel Television Mode Video Dubbing. Making the Connections. Video Dubbing Using Special Playback Features Frame Advance Slow motion. Troubleshooting. Identifying TV Problems Identifying DVD Problems Identifying VCR Problems.	5.1. 5.1. 5.1. 5.1. 5.1. 5.1. 5.1. 5.1.
•	Using Automatic Tracking Using the Time Counter Using Memory Stop Using P.PLUS Recording TV Programs As You Watch Recording. Editing While Recording. Using Advanced Recording Features Using One-Touch Recording. Recording at a Later Time Using Program Review Using True Repeat Using Block Repeat MTS (Multi-Channel Television sound) System. Selecting the MTS System. MTS Recording/Monitor Mode Video Dubbing. Making the Connections. Video Dubbing Using Special Playback Features Frame Advance. Slow motion. Troubleshooting. Identifying TV Problems Identifying TV Problems Identifying VCR Problems Identifying VCR Problems Identifying VCR Problems	5.1. 5.1. 5.1. 5.1. 5.1. 5.1. 5.1. 5.1.
•	Using Automatic Tracking Using the Time Counter Using Memory Stop Using PPLUS Recording TV Programs As You Watch Recording. Editing While Recording. Using Advanced Recording Features Using One-Touch Recording. Recording at a Later Time Using Program Review Using True Repeat. Using Block Repeat. MTS (Multi-Channel Television sound) System. Selecting the MTS System. MTS (Roulti-Channel Television Sound) System. Selecting the MTS System. MTS Recording/Monitor Mode Video Dubbing. Making the Connections. Video Dubbing Using Special Playback Features Frame Advance Slow motion Troubleshooting. Identifying TV Problems Identifying TV Problems Identifying VCR Problems Ide	5.1. 5.1. 5.1. 5.1. 5.1. 5.1. 5.1. 5.1.
•	Using Automatic Tracking Using the Time Counter Using Memory Stop Using PPLUS Recording TV Programs As You Watch Recording Editing While Recording. Using Advanced Recording Features Using One-Touch Recording. Recording at a Later Time Using Program Review Using True Repeat. Using Block Repeat MTS (Multi-Channel Television sound) System Selecting the MTS System MTS Recording/Monitor Mode Video Dubbing Making the Connections. Video Dubbing Using Special Playback Features Frame Advance Slow motion Troubleshooting Identifying TV Problems Identifying TV Problems Identifying VCR Problems Identifying VCR Problems Identifying VCR Problems Identifying VCR Problems Identifyour 3Way Combination Unit Using Your 3Way Combination Unit in Another Country. Learning About Video Cassette Tapes	5.1. 5.1. 5.1. 5.1. 5.1. 5.1. 5.1. 5.1.
•	Using Automatic Tracking Using the Time Counter Using Memory Stop Using PPLUS Recording TV Programs As You Watch Recording. Editing While Recording. Using Advanced Recording Features Using One-Touch Recording. Recording at a Later Time Using Program Review Using True Repeat. Using Block Repeat. MTS (Multi-Channel Television sound) System. Selecting the MTS System. MTS (Roulti-Channel Television Sound) System. Selecting the MTS System. MTS Recording/Monitor Mode Video Dubbing. Making the Connections. Video Dubbing Using Special Playback Features Frame Advance Slow motion Troubleshooting. Identifying TV Problems Identifying TV Problems Identifying VCR Problems Ide	5 5 5 5 5 5 5 5

2 CONTENTS

Chapter One

YOUR NEW 3WAY COMBINATION UNIT

List of Features

Your 3way Combination Unit was designed with the latest technology. This 3way Combination Unit is a high-performance unit that includes the following special features:

TV Features

- · Full Flat screen
- Automatic timer to turn the 3way Combination Unit on and off
- Adjustable picture and sound settings that can be stored in the 3way Combination Unit's memory
- Automatic channel tuning for up to 181 channels
- A special filter to reduce or eliminate reception problems
- Fine tuning control for the sharpest picture possible
- A built-in multi-channel sound decoder for stereo and bilingual listening
- Built-in, dual channel speakers
- A special sleep timer
- V-chip function

DVD Features

- DTS digital output for DTS-enhanced DVDs
- Playback MP3 files from CD-ROM

Discs which cannot be played with this player.

- $\bullet \ DVD\text{-}ROM$
- CDGs play audio only,
- CD-ROM
- not graphics.
- CDI
- CDV
- $\bullet\,$ HD layer of super Audio CD

VCR Features

- Hi-Fi Stereo VCR.
- 4 heads for superior slow motion and stop action
- Playback of S-VHS tapes at better than standard resolution
- · Real time counter

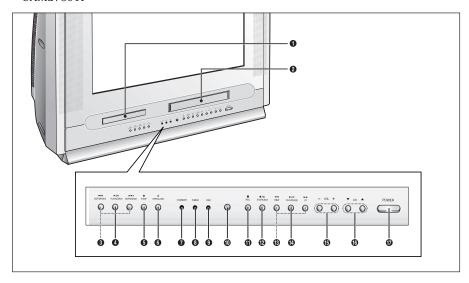
Chapter One: Your New 3way Combination Unit 1.1

Familiarizing Yourself with The 3way Combination Unit

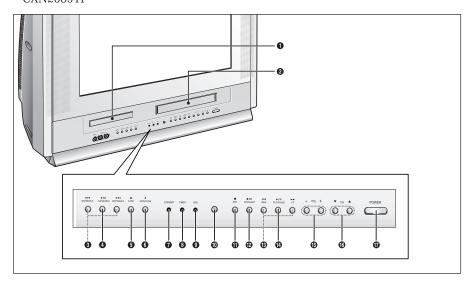
Front Panel Buttons

The buttons on the front panel control your 3way Combination Unit's basic features, including the on-screen menu. To use the more advanced features, you must use the remote control.

• CXM2785TP



• CXN2085TP



1.2 Chapter One: Your New 3way Combination Unit

YOUR NEW 3WAY COMBINATION UNIT

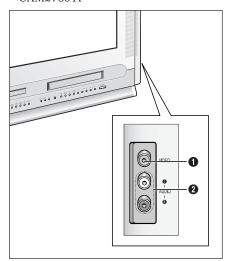
- 1 Disc tray Load the disc here.
- VCR deck Insert a standard VHS video tape.
- **3 SKIP/SEARCH (DVD)**Press to skip or search the title, chapter or track.
- **4 PLAY/PAUSE (DVD)**Press to play or pause the disc
- **5** STOP (DVD) Press to stop the disc
- **6** OPEN/CLOSE (DVD)
 Press to open and close the disc tray.
- **3 STAND BY indicator** Lit when TV power is Off.
- **8 TIMER indicator** Lit when the program times are stored.
- 9 REC indicator Lit when the VCR is recording.

- Remote Control Sensor Aim the remote control towards this spot on the
- REC (VCR)
 Press to begin recording.
- STOP/EJECT (VCR)
 Press to stop a video tape during play, record, rewind, or fast forward. Press to eject a video tape if the tape is stopped.
- REW/FF (VCR) Press to rewind/fast forward a videotape.
- PLAY/PAUSE (VCR) Press to play or pause a video tape.
- **(5) VOLUME , +** Press to increase or decrease the volume.
- **(b) CHANNEL ▼** and **△** Press to change channels.
- **POWER**Press to turn the TV on and off.

Front/Side Panel Jacks

You can use the Front/Side panel jacks to connect an A/V component that is used only occasionally, such as a camcorder or video game. (For information on connecting equipment, see pages 2.1 - 2.6.)

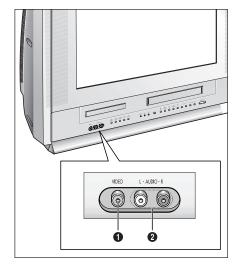
• CXM2785TP



1 VIDEO IN jack

Used to connect a video signal from a camcorder or video game.

• CXN2085TP



2 AUDIO IN jacks

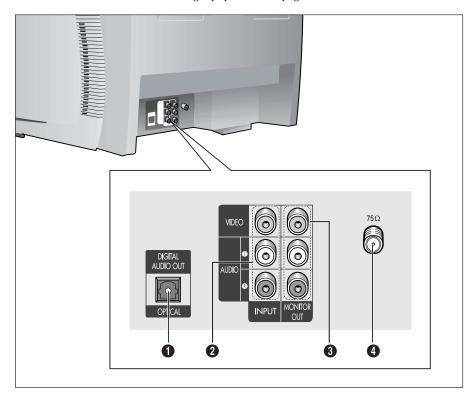
Used to connect the audio signals from a camcorder or video game.

Chapter One: Your New 3way Combination Unit 1.3

Rear Panel Jacks

Use the rear panel jacks to connect an A/V component that will be connected continuously, such as a VCR or a camcorder.

For more information on connecting equipment, see pages 2.1 - 2.6.



- **1 DIGITAL AUDIO OUTPUT**Connect to a compatible dolby digital receiver.
- **VIDEO-AUDIO INPUTS**Used to connect video-audio signals from VCRs, laserdisc players and similar devices.

AUDIO-VIDEO MONITOR OUTPUTS

Connect to the audio-video input jacks of a recording VCR.

0 VHF/UHF

Connect to an antenna or to a cable 3way Combination Unit system.

 $1.4\,$ Chapter One: Your New 3way Combination Unit

Remote Control (TV Function Buttons)

You can use the remote control up to about 23 feet from the TV. When using the remote, always point it directly at the TV.

O POWER

Turns the 3way Combination Unit on and off.

2 +100

Press to select channels over 100. For example, to select channel 121, press "+100," then press "2" and "1."

O VOL +, VOL -

Press increase or decrease the volume.

MUTE

Press to temporarily cut off the sound.

6 S.STD

Adjust the TV sound by selecting one of the preset factory settings (or select your personal, customized sound settings).

6 P.STD

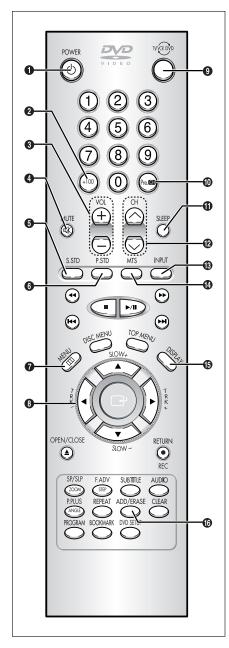
Adjust the TV picture by selecting one of the preset factory settings (or select your personal, customized picture settings).

0 MENU

Displays the main on-screen menu.

Control the cursor in the menu

Allows move to items.



9 TV/VCR ↔ DVD selection

Press to switch between TV/VCR, and DVD mode.

O PRE-CH

Tunes to the previous channel.

(1) SLEEP

Press to select a preset time interval for automatic shutoff.

② CH ✓ and CH △ (Channel Down/Up)

Press CH ✓ or CH to change channels.

® INPUT

Press to watch the TV picture or a picture from a connected component (VCR, camcorder etc...)

MTS (Multichannel Television Stereo)

Press to choose stereo, mono or Separate Audio Program (SAP broadcast).

(B) DISPLAY

Press to see the channel, time, current disc mode, audio/video settings etc., on-screen.

ADD/ERASE

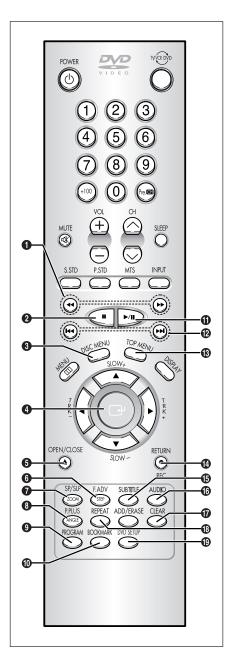
Press to add or erase channels in the TV's memory.

Remote Control (DVD Function Buttons)

Search

Press to search forward/backward through a disc.

- 2 Stop Press to stop a disc.
- 3 DISC MENU Press to display the disc menu.
- **4 ENTER**Confirms a selection.
- **OPEN/CLOSE**Press to open or close the disc tray.
- **6 STEP**Press to advance play one frame at a time.
- **7 ZOOM**Press to zoom-in during playback, slow motion or pause mode on the selected area of a scene.
- **8 ANGLE**Press to access various camera angles on a DVD.
- **9 PROGRAM**For random and program play.
- BOOKMARK Press to memorize scenes for replay.



Play/pause

Press to play or pause disc play.

Skip

Press to skip the title, chapter, or track.

13 TOP MENU

Press to display the top menu on a DVD or CD/VCD disc.

RETURN

Press to return to a previous menu or exit.

SUBTITLE

Press to display the subtitle language name abbreviation onscreen.

6 AUDIO

Press to access various audio functions on a disc.

10 CLEAR

Press to clear on-screen displays.

REPEAT

Press to repeat play a title, chapter, track, or disc.

DVD SETUP

Displays the DVD play's Setup menu.

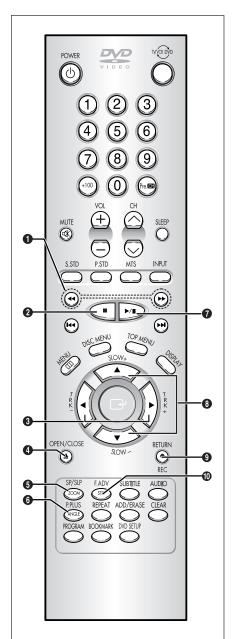
 $^{1.6\,}$ Chapter One: Your New 3way Combination Unit

Your New 3way Combination Unit

Remote Control (VCR Function Buttons)

- REW/F.F

 Press to rewind/fast forward a video tape.
- **2 Stop**Press to stop a video tape.
- **3** TRK+, (tracking) Press to adjust tape tracking.
- **4 OPEN/CLOSE** Press to eject a tape.
- **5** SP/SLP Press to select the tape recording speed.
- **6 P.PLUS**Press to compensate for a poor rental tape.



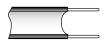
- **Play/pause**Press to play or pause a tape.
- 8 SLOW+, Press to watch a tape in slow motion.
- **9 REC** Press to begin recording.
- F.ADV (frame advance) Press to advance a tape frameby-frame.

Chapter Two

INSTALLATION

Connecting VHF and UHF Antennas

If your antenna has a set of leads that look like this, see "Antennas with 300-ohm Flat Twin Leads," below.



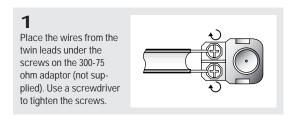
If your antenna has one lead that looks like this, see "Antennas with 75-ohm Round Leads," on page 2.2.



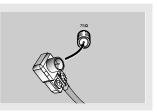
If you have two antennas, see "Separate VHF and UHF Antennas," on page 2.2.

Antennas with 300-ohm Flat Twin Leads

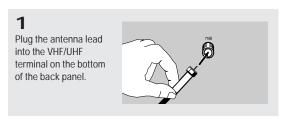
If you are using an off-air antenna (such as a roof antenna or "rabbit ears") that has 300-ohm twin flat leads, follow the directions below.







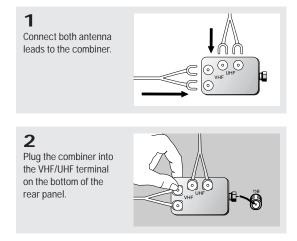
Antennas with 75-ohm Round Leads



2.1 Chapter Two: Installation

Separate VHF and UHF Antennas

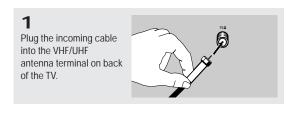
If you have two separate antennas for your TV (one VHF and one UHF), you must combine the two antenna signals before connecting the antennas to the TV. This procedure requires a an optional combiner-adaptor (available at most electronics shops).



Connecting Cable TV

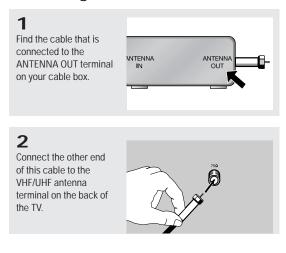
To connect to a cable TV system, follow the instructions below.

Cable without a Cable Box



■ Because this TV is cable-ready, you do not need a cable box to view unscrambled cable channels.

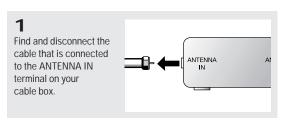
Connecting to a Cable Box that Descrambles All Channels



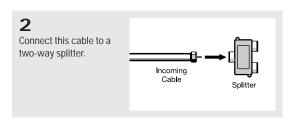
■ This terminal might be labeled "ANT OUT," "VHF OUT," or simply, "OUT."

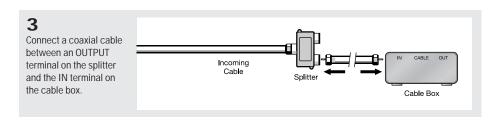
Connecting to a Cable Box that Descrambles Some Channels

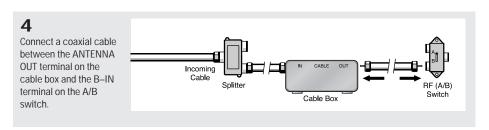
If your cable box descrambles only some channels (such as premium channels), follow the instructions below. You will need a two-way splitter, an RF (A/B) switch, and four lengths of coaxial cable. (These items are available at most electronics stores.)



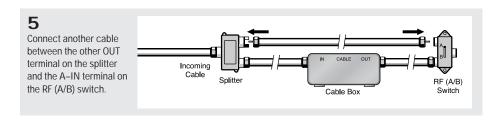
This terminal might be labeled "ANT IN," "VHF IN," or simply, "IN."

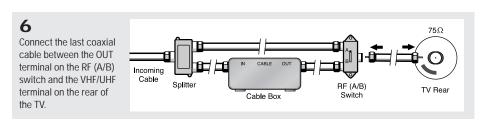






continued...



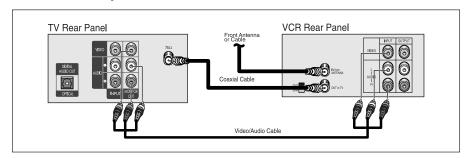


After you've made this connection, set the A/B switch to the "A" position for normal viewing. Set the A/B switch to the "B" position to view scrambled channels. (When you set the A/B switch to "B," you will need to tune your TV to the cable box's output channel, which is usually channel 3 or 4.)

Connecting a Second VCR to Record from the TV

Your TV can send out signals of its picture and sound to be recorded by a second VCR

To do this, connect your second VCR as follows:



1

Connect a coaxial cable between the ANTENNA OUT terminal on the VCR and the antenna terminal on the TV. A coaxial cable is usually included with a VCR. (If not, check your local electronics store).

2

Connect a set of audio cables between the VIDEO/AUDIO OUT jacks on the TV and the VIDEO/AUDIO IN jacks on the VCR

(The VCR input jacks might be either on the front or on back of the VCR.)

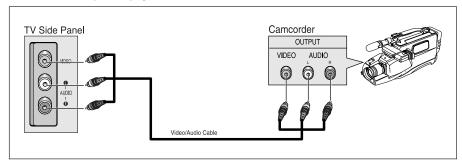
If you have a mono VCR, connect L(mono) to VCR audio out using only one audio cable.

Refer to your VCR's instructions for more information about how to record using this kind of connection.

Chapter Two: Installation 2.4

Connecting a Camcorder

The front/side panel jacks on your TV make it easy to connect a camcorder to your TV. They allow you to view the camcorder tapes without using a VCR. (Also see "Viewing a VCR or Camcorder Tape" on page 3.17)



1

Locate the A/V output jacks on the camcorder. They are usually found on the side or rear of the camcorder.

2

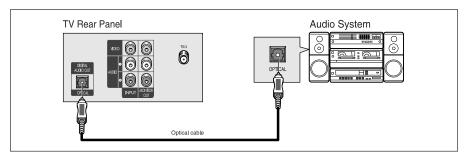
Connect an video/audio cable between the VIDEO/AUDIO OUTPUT jack on the camcorder and the VIDEO/AUDIO terminals on the TV.

If you have mono camcorder, connect L(mono) to camcorder audio out using only one audio cable. The audio-video cables shown here are usually included with a Camcorder. (If not, check your local electronics store.) If your camcorder is stereo, you need to connect a set of two cables.

Note: This figure shows the Standard connector-jack panel. The actual configuration for your TV may be different.

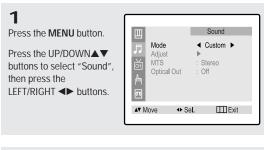
Connecting an Audio System (When playing a DVD)

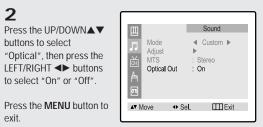
The DIGITAL AUDIO OUT connector is used for equipment, such as an audio system (to take full advantage of the Surround sound effect).



Connect an optical cable between the DIGITAL AUDIO IN jacks on the AUDIO and the DIGITAL AUDIO OUT jack on the TV.

Setting the Optical jack On/Off (Only DVD mode)

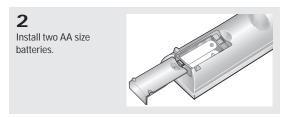




Note: The Optical On/Off function in the menu doesn't appear while a normal TV channel (RF channel) is being watched.

Installing Batteries in the Remote Control





■ Make sure to match the "+" and "−" ends of the batteries with the diagram inside the compartment.



→ Remove the batteries and store them in a cool, dry place if you won't be using the remote control for a long time.

The remote control can be used up to about 23 feet from the TV.

(Assuming typical TV usage, the batteries last for about one year.)

Chapter Three

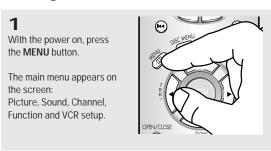
TV OPERATION

Turning the TV On and Off

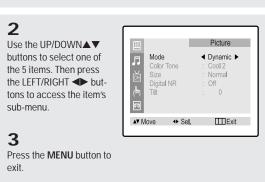
Press the **POWER** button on the remote control. You can also use the Power button on the front panel.

Viewing the Menus and On-Screen Displays

Viewing the Menus

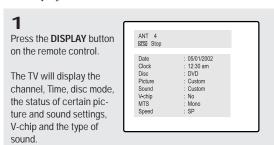


■ The on-screen menus disappear from the screen after about thirty seconds.



Viewing the Display

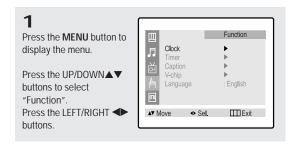
The display identifies the current channel and the status of certain audio-video settings.

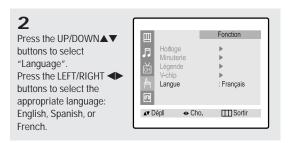


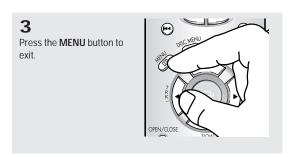
■ The on-screen displays disappear after about ten seconds.

Chapter Three: TV Operation 3.1

Selecting a Menu Language





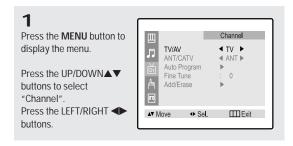


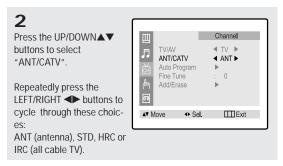
Memorizing the Channels

Your TV can memorize and store all of the available channels for both "off-air" (antenna) and cable channels. After the available channels are memorized, use the CH \blacktriangle and CH \blacktriangledown buttons to scan through the channels. This eliminates the need to change channels by entering the channel digits. There are three steps for memorizing channels: selecting a broadcast source, memorizing the channels (automatic) and adding and deleting channels (manual).

Selecting the Video Signal-source

Before your television can begin memorizing the available channels, you must specify the type of signal source that is connected to the TV (i.e., an antenna or a cable system).

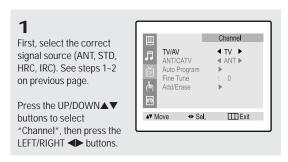




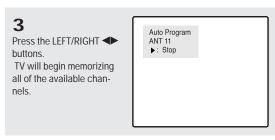
Note: STD, HRC and IRC identify various types of cable TV systems. Contact your local cable company to identify the type of cable system that exists in your particular area.

At this point the signal source has been selected. Proceed to "Storing Channels in Memory" (next page).

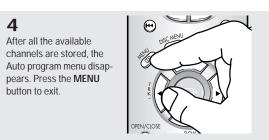
Storing Channels in Memory (Automatic Method)







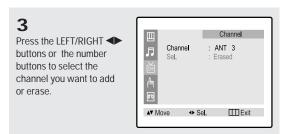
The TV automatically cycles through all of the available channels and stores them in memory. This takes about one to two minutes.Press the RIGHT ▶ button at any time to interrupt the memorization process and return to the Channel menu.



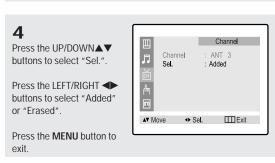
Adding and Erasing Channels (Manual Method)







✓ You can view any channel (including an erased channel) by using the number buttons or UP/DOWN▲▼ buttons on the remote control.



Chapter Three: TV Operation 3.5

Changing Channels

Using the Channel Buttons

Press the ${\it CH} \lor {\it or} {\it CH} \land {\it buttons}$ to change channels.



■ When you press the CH \(\sim \) or CH \(\sim \) buttons, the TV changes channels in sequence. You will see all the channels that the TV has memorized. (The TV must have memorized at least three channels.) You will not see channels that were either erased or not memorized.

Directly Accessing Channels

Use the number buttons to quickly tune to any channel.

Press the number buttons to go directly to a channel. For example, to select channel 27, press "2," then "7." The TV will change channels when you press the second number.



When you use the number buttons, you can directly select channels that were either erased or not memorized.

To select a channel over 100, press the +100 button. (For channel 122, press "+100," then "2.")

To change to single-digit channels (0-9) faster, press "0" before the single digit. (For channel "4," press "0," then "4.")

Using the Pre-CH Button to select the Previous Channel

Press the **PRE.CH** button. The TV will switch to the last channel viewed.



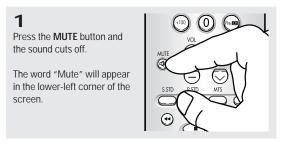
■ To quickly switch between two channels that are far apart, tune to one channel, then use the number button to select the second channel. Then, use the Pre-CH button to quickly alternate between them.

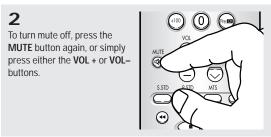
Adjusting the Volume

Press the VOL + or VOL – buttons to increase or decrease the volume.

Using Mute

At any time, you can temporarily cut off the sound using the Mute button.

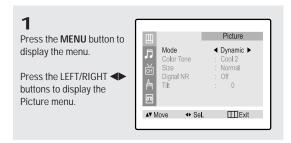




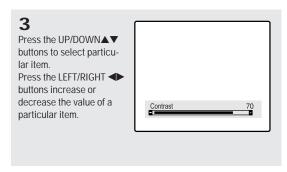
Chapter Three: TV Operation 3.7

Customizing the Picture

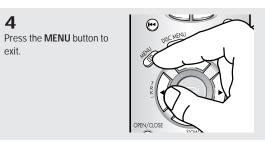
You can use the on-screen menus to change the contrast, brightness, tint, color, and sharpness according to personal preference. (Alternatively, you can use one of the "automatic" settings. See next page.)





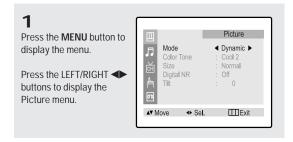


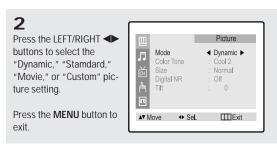
■ After adjusting an item, the gauge will automatically disappear (after about 3 seconds).



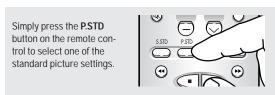
Using Automatic Picture Settings

Your TV has three automatic picture settings ("Dynamic", "Standard" and "Movie") that are preset at the factory. You can activate either Dynamic, Standard, or Movie by pressing P.STD (or by making a selection from the menu). Or, you can select "Custom" which automatically recalls your personalized picture settings.



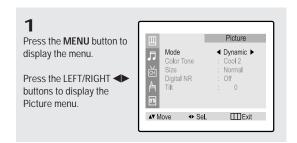


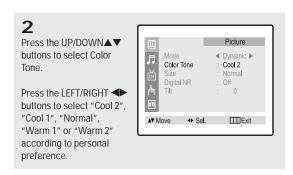
Alternate method:

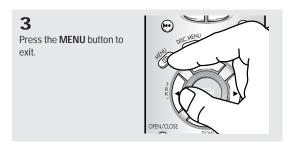


- Choose *Dynamic* for viewing the TV during the day or when there is brightlight in the room.
- · Choose Standard for the standard factory settings.
- Choose Movie when viewing the movie.
- Choose Custom if you want to adjust the settings accordings to personal preference (see "Customizing the Picture", page 3.8).

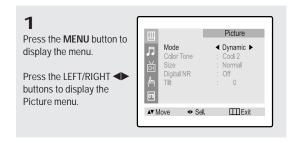
Changing the Color Tone

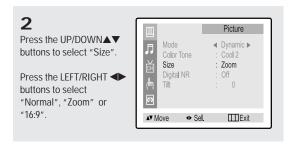


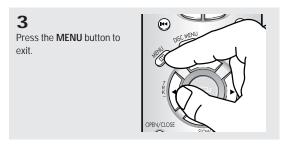




Changing the Screen Size



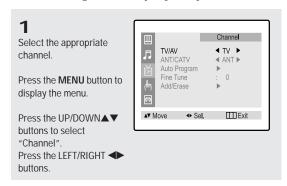


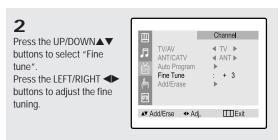


- Normal : Sets the picture to 4:3 normal mode. This is a standard TV screen size.
- Zoom : Sets the picture to Zoom mode.
- 16:9 : Sets the picture to 16:9 mode.

Fine Tuning Channels

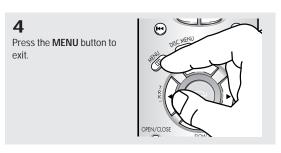
Use fine tuning to manually adjust a particular channel for optimal reception.





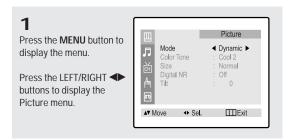


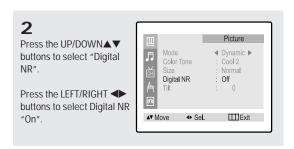
■ After you adjust the fine tuning, the color of Channel No. will turn into red if you press the DISPLAY button while watching this channel.



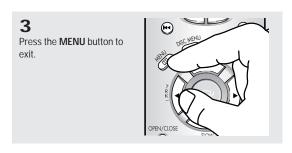
Digital Noise Reduction

If the broadcast signal received by your TV is weak, you can activate the Digital Noise Reduction feature to help reduce any static and ghosting that may appear on the screen.



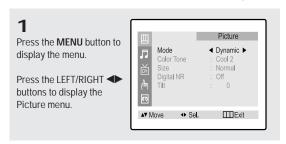


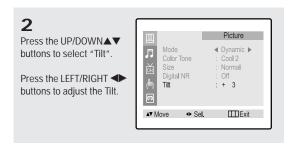
→ Pressing the LEFT/RIGHT →
buttons will alternate between "On"
and "Off".

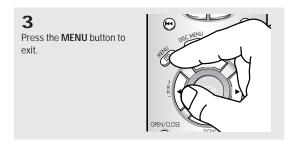


Tilt (For model CXM2785TP)

Due to the Earth's magnetic field there may be same minor image tilt depending on the TV's location. When this occurs, follow the steps below.

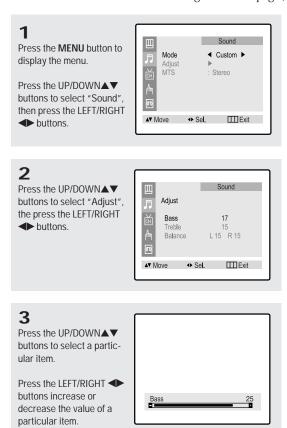


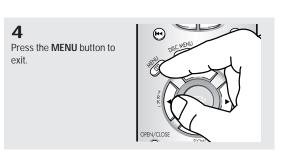




Customizing the Sound

The sound settings can be adjusted to suit your personal preferences. (Alternatively, you can use one of the "automatic" settings. See next page.)

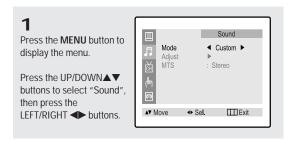


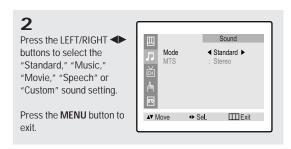


■ After adjusting an item, the gauge will automatically disappear (after about 3 seconds).

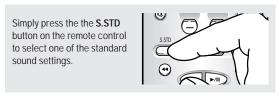
Using Automatic Sound Settings

Your TV has four automatic sound settings ("Standard," "Music," "Movie" and "Speech") that are preset at the factory. You can activate any of them by pressing the S.STD button (or by making a selection from the on-screen menu). Or, you can select "Adjust," which automatically recalls your personalized sound settings.





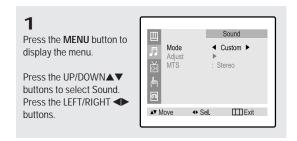
Alternate method:

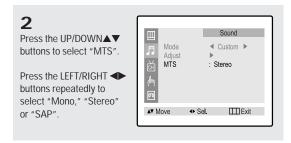


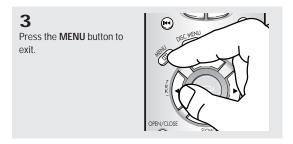
- Choose Standard for the standard factory settings.
- Choose *Music* when watching music videos or concerts.
- Choose Movie when watching movies.
- Choose Speech when watching a show that is mostly dialogue (i.e., news).
- Choose Custom to recall your personalized settings.

Choosing a Multi-Channel Soundtrack (MTS)

Depending on the particular program being broadcast, you can listen to stereo, mono, or a Separate Audio Program. (SAP audio is usually a foreign-language translation. Sometimes SAP has unrelated information like news or weather.)





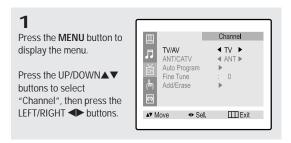


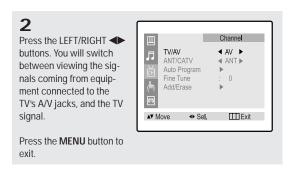
- Choose Mono for channels that are broadcasting in mono, or if you are having difficulty receiving a stereo signal.
- Choose Stereo for channels that are broadcasting in stereo.
- Choose *SAP* to listen to the Separate Audio Program, which is usually a foreign-language translation.

You can also change the MTS setting by pressing the "MTS" button on the remote control.

Viewing a VCR or Camcorder Tape

You must select the appropriate mode in order to view the VCR or Camcorder signal on the ${\ensuremath{\text{TV}}}$.





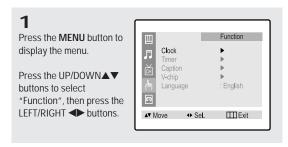
Alternate method:

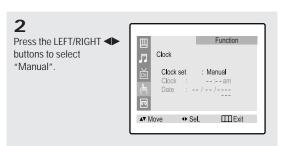
Simply press the INPUT button on the remote control one or more times until the required input is displayed.

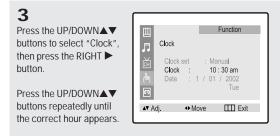
Setting the Clock

Setting the clock is necessary in order to use the various timer features of the TV. Also, you can check the time while watching the TV (Just press the DISPLAY button).

Option 1: Setting the Clock Manually

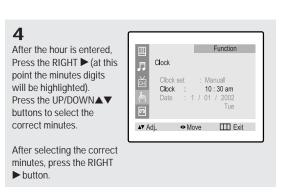






■ When selecting the hours, be sure to select the proper time of day (am or pm).

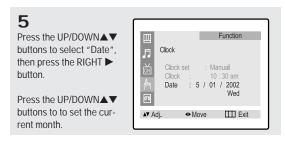
You can change the hours by pressing the **UP**▲ or **DOWN** ▼ button repeatedly (or by holding down either of these buttons).

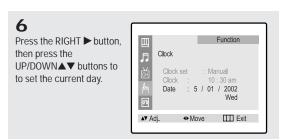


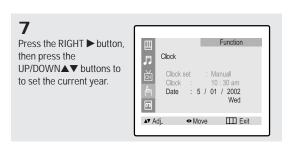
■ The time will appear every time you press the DISPLAY button.

Chapter Three: TV Operation 3.19

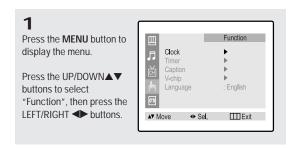
Setting the Date

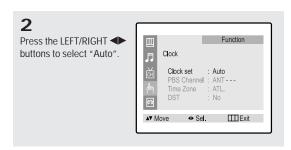


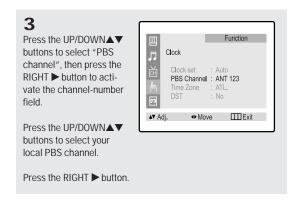


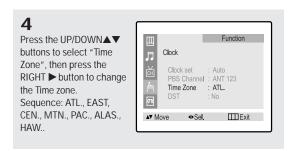


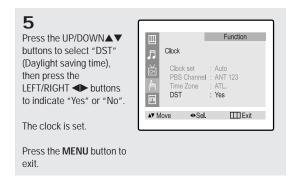
Option 2: Using the Local PBS Channel to Automatically Set the TV Clock



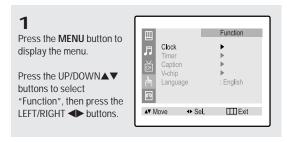








Setting the On/Off Timer

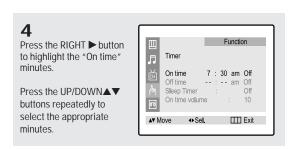


■ Before using the timer, you must set the TV's clock. (See "Setting the Clock" on page 3.18)

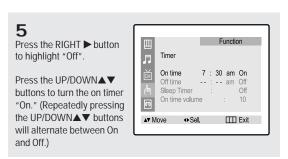


3 Function Press the UP/DOWN▲▼ M M Timer buttons to select "On Time." On time 7 : 00 am Off Off time Sleep Timer Press the RIGHT ▶ button On time volume to highlight the "On time" hours. Press the UP/DOWN▲▼ buttons repeatedly to select the appropriate hours (i.e., the hour when

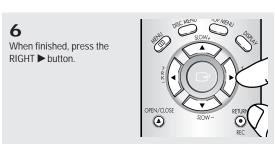
■ When you set the hours, make sure the correct time of day (am or pm) appears to the right of the hour.



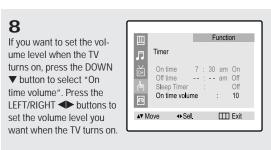
the TV will turn on.)

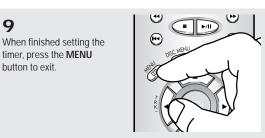


■ To deactivate the "On time," select "Off" during this step.





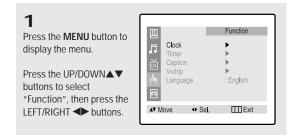




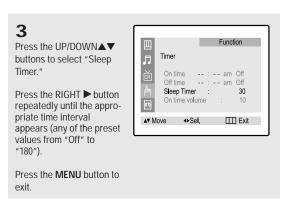
3.24 Chapter Three: TV Operation

Setting the Sleep Timer

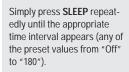
The sleep timer automatically shuts off the TV after a preset time (from 15 to 180 minutes).







Alternate method:

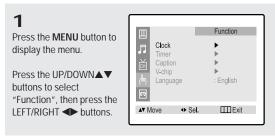




■ After about 3 seconds, the sleep display will disappear from the screen, and the time interval will be set.

Viewing Closed Captions

Your TV decodes and displays the closed captions that are broadcast with certain TV shows. These captions are usually subtitles for the hearing impaired or foreign-language translations. All VCRs record the closed caption signal from television programs, so home-recorded video tapes also provide closed captions. Most DVDs and pre-recorded commercial video tapes provide closed captions as well. Check for the closed caption symbol in your television schedule and on the tape's packaging: [cc].



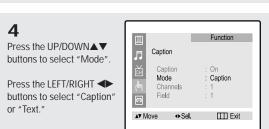
Press the UP/DOWN▲▼
buttons to select "Caption",
then press the LEFT/RIGHT
■▶ buttons.







■ Misspellings and unusual characters sometimes occur during closed caption transmissions, especially those of live events. There may be a small delay before captions appear when you change channels. These are not malfunctions of the TV.



■ In **caption mode**, captions appear at the bottom of the screen, and they usually cover only a small portion of the picture.

In **text mode**, information unrelated to the program, such as news or weather, is displayed. Text often covers a large portion of the screen.

■ Different channels and fields display different information: Field 2 carries additional information that supplements the information in Field 1. (For example, Channel 1 may have subtitles in English, while Channel 2 has subtitles in Spanish.)



Depending on the particular broadcast, it might be necessary to make changes to "Channels" and "Field":

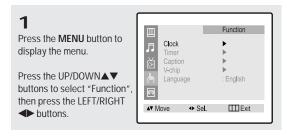
Use the UP/DOWN▲▼, LEFT/RIGHT ◆ buttons to make the changes. (Follow the same procedure as in steps 3-4 above.)
Press the **MENU** button to exit.

3.26 Chapter Three: TV Operation

Using the V-Chip

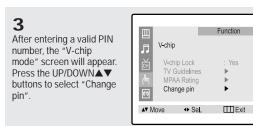
The V-Chip feature automatically locks out programming that is deemed inappropriate for children. The user must first enter a PIN (personal ID number) before any of the V-Chip restrictions can be set up or changed.

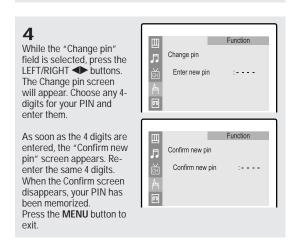
Setting Up Your Personal ID Number (PIN)





The "Enter pin" screen will appear. Enter your 4-digit PIN number. Note: The default PIN number for a new TV set is "0-0-0-0."



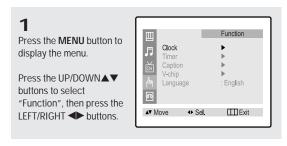


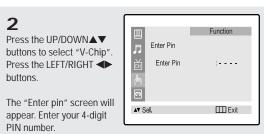
■ Note: If you forget the PIN, press the remote-control buttons in the following sequence, which resets the pin to 0-0-0-0:

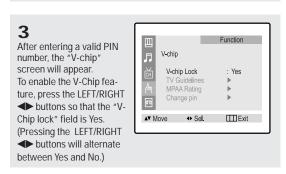
POWER OFF \rightarrow MUTE \rightarrow 8 \rightarrow 2 \rightarrow 4 \rightarrow POWER ON.

Chapter Three: TV Operation 3.27

How to Enable/Disable the V-Chip

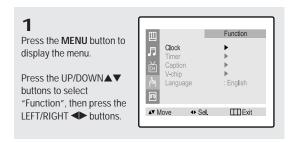




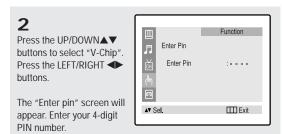


How to Set up Restrictions Using the "TV guidelines"

First, set up a personal identification number (PIN), and enable the V-Chip. (See previous section.) Parental restrictions can be set up using either of two methods: The TV guidelines or the MPAA rating.



3.28 Chapter Three: TV Operation



3 Press the UP/DOWN▲▼ buttons to select "TV Guidelines".



All FV V S L D

▲▼ Move ◆ Sel.

U: Unblocked B: Blocked

□ Exit

4

Press the LEFT/RIGHT ◆ buttons. The "TV guidelines" screen will appear. Press the UP/DOWN▲▼ buttons to select one of the six age-based categories:

Young children TV-Y TV-Y7 Children 7 and over

TV-G General audience TV-PG Parental guidance TV-14 Viewers 14 and over TV-MA Mature audience



■ Note: These categories consist of two separate groups: TV-Y and TV-Y7 (young children through age 7), and TV-G through TV-MA (everybody

The restrictions for these two groups work independently: If a household includes very young children as well as young adults, the TV guidelines must be set up separately for each age group. (See next step.)

At this point, one of the TV-Ratings is selected.

Press the LEFT/RIGHT ◆ buttons: Depending on your existing setup, a letter "U" or "B" will be selected. (U= Unblocked, B= Blocked)

While the "U" or "B" is selected, press the UP/DOWN▲▼ buttons to block or unblock the category. Press the LEFT/RIGHT **b** buttons to save the TV guidelines. A TV-Rating will be selected. To select a different TV-Rating, press the UP/DOWN▲▼ buttons and then repeat the process.

Note 1: The TV-Y7, TV-PG, TV-14 and TV-MA have additional options. See the next step to change any of the following sub-ratings:

FV: Fantasy violence D: Sexual suggestive dialog

L: Adult language

S: **S**exual situation

V: Violence

Note 2: The V-Chip will automatically block certain categories that are "more restrictive." For example, if you block "TV-Y" category, then TV-Y7 will automatically be blocked. Similarly, if you block the TV-G category, then all the categories in the "young adult" group will be blocked (TV-G, TV-PG, TV-14 and TV-MA). The sub-ratings (D, L, S, V) work together similarly. (See next section.)

Chapter Three: TV Operation 3.29



How to set the FV, D, L, S and V sub-ratings.

First, select one of these TV-Ratings: TV-Y7, TV-PG, TV-14 or TV-MA (See Step 4, on previous page). Next, while the TV-Rating is selected, repeatedly press the LEFT/RIGHT ◆▶ buttons. This will cycle through the available sub-ratings (FV,L, S, D or V).

A letter ("U" or "B") will be displayed for each sub-rating. While the "U" or "B" is selected, press the

UP/DOWN▲▼ buttons to change the sub-rating.

Press the LEFT/RIGHT ◆ buttons to save the TV guidelines. A TV-Rating will be selected.

To select a different TV-Rating, press the UP/DOWN▲▼ buttons and then repeat the process.

Note: The V-chip will automatically block certain categories that are "More restrictive". For example, if you block "L" sub-rating in TV-PG, then the "L" sub-ratings in TV-14 and TV-MA will automatically be blocked.

Press the MENU button to clear all the screens. (Or proceed to the next section, and set up additional restrictions based on the MPAA codes).

How to Set up Restrictions using the MPAA Ratings: G, PG, PG-13, R, NC-17, $\rm X$

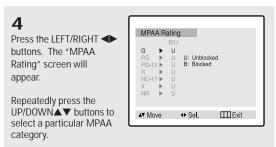
The MPAA rating system uses the Motion Picture Association of America (MPAA) system, and its main application is for movies. (Eventually, movie videocassettes and DVDs will be encoded with MPAA ratings.) When the V-Chip lock is on, the TV will automatically block any programs that are coded with objectionable ratings (either MPAA or TV-Ratings).





3.30 Chapter Three: TV Operation





G	General audience (no restrictions).
PG	Parental guidance suggested.
PG-13	PG-13 (Parents strongly cautioned).
R	R (Restricted. Children under 17 should be accompanied by an adult).
NC-17	No children under age 17.
Χ	X (Adults only).
NR	Not rated.

While a particular category is selected, press the LEFT/RIGHT → buttons to activate it. A letter ("U" or "B") will be selected. Press the UP/DOWN ▲▼ buttons to select "U" or "B". Press the LEFT/RIGHT → buttons to save the settings and Press the MENU button to exit. Note: The V-Chip will automatically block any category that is "more restrictive." For example, if you block the "PG-13" category, then "R," "NC-17," and "X" will automatically be blocked also.

How to Reset the TV after the V-Chip Blocks a Channel ("Emergency Escape")

If the TV is tuned to a restricted channel, the V-Chip will block it. The screen will go blank and the following message will appear: "Excessive rating."

To resume normal viewing, tune to a different channel using the number buttons. Under certain conditions (depending on the rating of the local TV programs) the V-Chip might lock out all the channels. In this case, use the V.Chip button for an "emergency escape":

- 1. Press the **MENU** button on the remote control.
- 2. Press the UP/DOWN▲▼ buttons to select the "Function", then press the LEFT/RIGHT◀▶ buttons.
- 3. Press the UP/DOWN▲▼ buttons to select the "V-Chip", then press the LEFT/RIGHT◀▶ buttons.
- 4 .Enter your PIN number, and press the LEFT/RIGHT ◆ buttons to temporarily disable the V-Chip Lock.

Chapter Four

DVD OPERATION

Playing a Disc

Playback

1

Press the www button to switch the DVD mode.

2

Press the **OPEN/CLOSE** button.

3

Place a disc gently into the tray with the disc's label facing up.

4

Press the PLAY/PAUSE (►/II) or OPEN/CLOSE button to close the disc tray.







◄ RESUME function

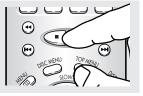
When you stop disc play, the player remembers where you stopped, so when you press the PLAY again, it will pick up where you left off (unless the disc is removed, the STOP(■) button is pressed twice or the set is unplugged).

If the player is left for 5 minutes in pause mode, it will stop.
This ⊘icon indicates an invalid

button press.

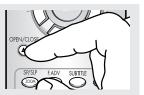
Stopping Playback

Press the **STOP(** ■ **)** button during playback.



Removing Disc

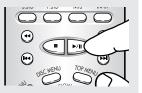
Press the **OPEN/CLOSE** button.



Pausing Playback

Press the PLAY/PAUSE(►/II) or STEP button on the remote control during playback.

- Screen stops, no sound.
- To resume again, press the PLAY/PAUSE(►/II) button once again.



4.1 Chapter Four: DVD Operation

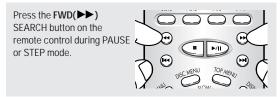
Step Motion Playback (Except CD)

Press the **STEP** button on the remote control during playback.



- Each time the button is pressed, a new frame will appear.
- No sound is heard during STEP mode.
- Press the PLAY/PAUSE(►/II) button to resume normal playback (You can only perform step motion playback in the forward direction).

Slow Motion Playback (Except CD)



- By pressing the FWD SEARCH button, you can select slow motion playback for 1/8, 1/4 or 1/2 of normal speed.
- No sound is heard during slow mode.
- Press the PLAY/PAUSE(\blacktriangleright/II) button to resume normal playback.
- When playing a VCD, the reverse slow motion play will not work.

Using the Search and Skip Functions

Searching through a Chapter or Track

Press the FWD(▶▶) or REW(◄◄) SEARCH button on the remote control during playback.



■ When in search mode (2X/4X/8X/16X/32X/128X) on a DVD or high-speed playback on a VCD, no sound will be heard.

- Press the FWD(►►) or REW(◄◄) SEARCH button on the remote control and press again to search at a faster speed (2X/4X/8X/16X/32X/128X) on the DVD.
- Press the FWD(▶►) or REW(◄◄) SEARCH button on the remote control and press again to search at a faster speed on VCD (4X/8X) and CD (2X/4X/8X).
- To return to normal speed playback, press the PLAY/PAUSE(►/Ⅱ) button.

Skipping Tracks

During playback, press the NEXT SKIP(▶►I) or BACK SKIP(I◀◀) button.

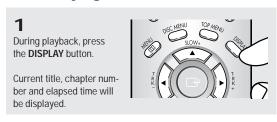


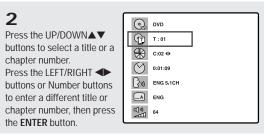
- When playing a DVD, if you press the NEXT SKIP
 (▶►I) button, it moves to next chapter. If you press the
 BACK SKIP (I◄◄) button, it moves to the beginning of
 the chapter. One more press makes it move to the
 beginning of the previous chapter.
- When playing a VCD 2.0 in MENU OFF mode, a VCD1.1 or a CD, if you press the NEXT SKIP(▶►1) button, it moves to next track. If you press the BACK SKIP(I◄◄) button, it moves to the beginning of the track. One more press makes it move to the beginning of the previous track.
- If a track exceeds 15 minutes when playing a VCD and you press the NEXT SKIP(►►I) button, it moves forward 5 minutes. If you press the BACK SKIP(I◄◄) button, it moves backward 5 minutes.
- When playing a VCD 2.0 in the MENU MODE or Track View function, if you press the NEXT SKIP(▶►I) button, it moves to the next MENU or the next Track View display. If you press the BACK SKIP(I◄◄) button, it moves to the previous MENU or the previous Track View display.

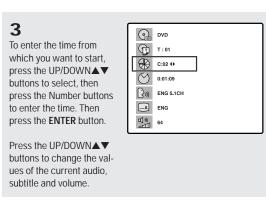
4.3 Chapter Four: DVD Operation

Using the Display Function

When Playing a DVD





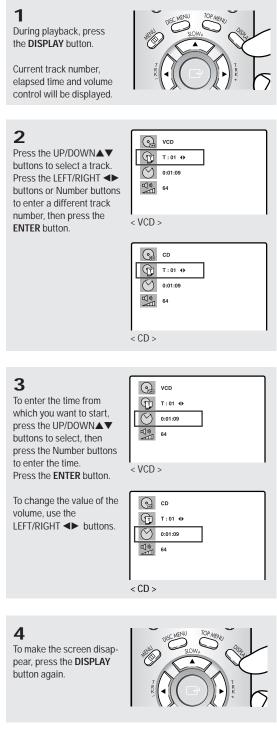




- What is a Chapter?
 Each Title on a DVD can be divided into chapters (similar to tracks on an audio CD).
- What is a Title?
 A DVD may contain several different titles. For example, if a disc contains four different movies, each might be considered a title.

DVD OPERATION

When Playing a CD/VCD

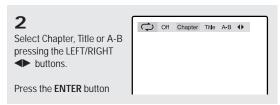


4.5 Chapter Four: DVD Operation

Repeat Play

Repeat the current track, chapter, title, a chosen section (A-B), or all of the disc.



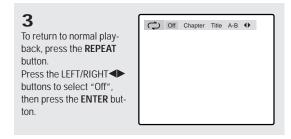


A-B Repeat

- **①** Press the **REPEAT** button. Select A-B on screen with the LEFT/RIGHT**◆** buttons.
- **2** Press the ENTER button at the point where you want the repeat play to start (A).

The B is automatically highlighted.

- **3** Press the ENTER button at the point where you want the repeat play to stop (B).
- **4** The A-B Repeat that you set plays until you turn Repeat off.

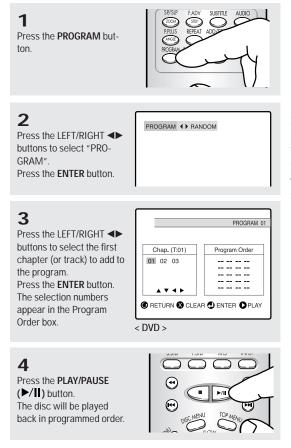


<u>Note</u>

- DVD repeats playback by chapter or title, CD and VCD repeat playback by disc or track.
- Depending on the disc, the Repeat function may not work.
- If the title or track is completed before marking the end (B), the end of title or track becomes B automatically.
- When in VCD 2.0 mode (Menu On mode), this function does not work.

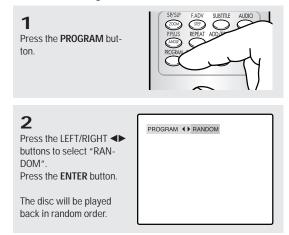
Program Play and Random Play

Program Playback



■ Depending on the disc, the Program and Random Playback function may not work. When in VCD 2.0 mode (Menu On mode), these functions do not work. To resume normal playback, press the CLEAR button.

Random Playback

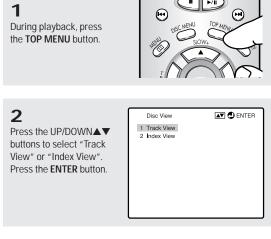


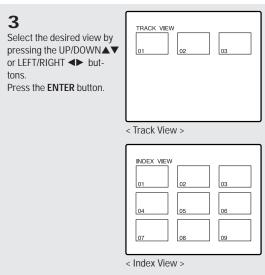
4.7 Chapter Four: DVD Operation

Using the Disc View Function (VCD)

Track View/Index View

Displays the beginning view of each track and the track number (Track View). Displays the equally divided 9 views of the current playing track (Index View).





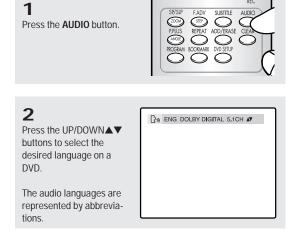
→ When pressing the TOP MENU button with a DVD; the disc's TITLE MENU function comes up. A disc must have at least two titles for the TITLE MENU function to work.

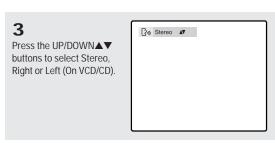
When pressing the TOP MENU button with a CD; the unit enters the INTRO mode. INTRO lets you listen to the beginning of each track for about 10 seconds.

Selecting the Audio Language

Using the AUDIO Button

You can select a desired language quickly and easily with the AUDIO button.





■ This function depends on what languages are encoded on the disc and may not work with all DVDs.

A DVD disc can contain up to 8 audio languages.

How to have the same audio languages.

How to have the same audio languages.

How to have the same audio languages.

The same audio languages audio

How to have the same audio language come up whenever you play back a DVD:

Refer to "Using the DVD SETUP Button (When in the DVD mode)" on page 4.10.

Using the DVD SETUP Button (When in the DVD mode)







✓ Select "Original" if you want the default soundtrack language to be the original language the disc is recorded in.

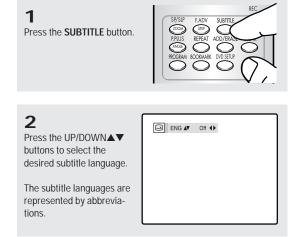
If the selected language is not recorded on the disc, the original pre-recorded language is selected.

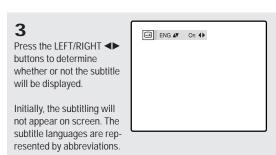


Selecting the Subtitle Language

Using the SUBTITLE button

You can select a desired subtitle quickly and easily with the SUBTITLE button.





■ This function depends on what languages are encoded on the disc and may not work with all DVDs. A DVD disc can contain up to 32 subtitle languages.

Here to begin the same subtitle language.

The same subtitle language is the same subtitle language.

The same subtitle language is the same subtitle language is the same subtitle language.

The same subtitle language is the same subtitle language is the same subtitle language is the same subtitle language.

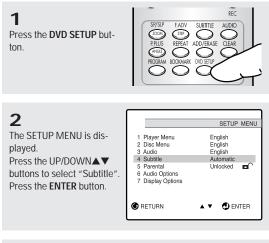
The same subtitle language is the same subtitle language.

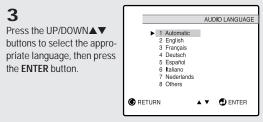
Here to be same subtitle language is the same subtitle lang

How to have the same subtitle language come up whenever you play back a DVD:

Refer to "Using the DVD SETUP Button (When in the DVD mode)" on page 4.12.

Using the DVD SETUP Button (When in the DVD mode)





■ Select "Automatic" if you want the subtitle language to be the same as the language selected as the audio preference.

If the selected language is not recorded on the disc, the original pre-recorded language is selected.



Using the Master Volume Control Function



- Master Volume Control function lets you adjust the volume of the player's output. This is useful for matching the player's output level to other equipment in your system.
- Volume control is only operative when using the Analog Audio outputs.
- There are up to 64 levels. Lowering each level reduces the audio level by 0.5dB.

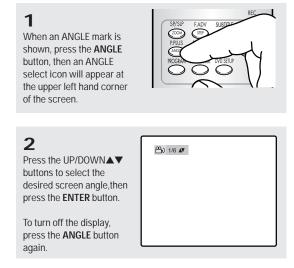
Chapter Four: DVD Operation 4.12

Changing the Camera Angle

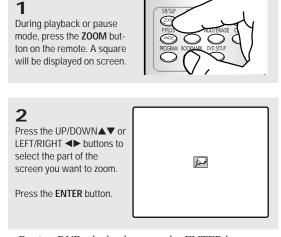
When a DVD contains multiple angles of a particular scene, you can select the Angle function.

Using the ANGLE button

Press the ANGLE button to see if an ANGLE (\P) mark is present at the upper right hand corner of the screen.



Using the Zoom Function (DVD/VCD)

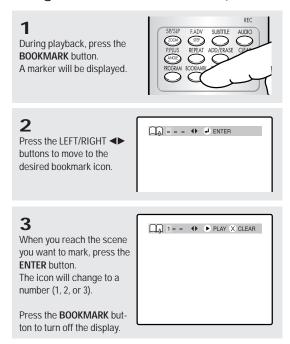


- \bullet During DVD playback, press the ENTER button to zoom in 2X/4X/2X in order.
- During VCD playback, press the ENTER button to zoom in 2X.
- 4.13 Chapter Four: DVD Operation

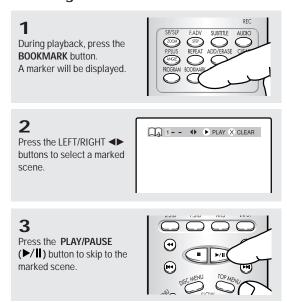
Using the Bookmark Function

The Bookmark function lets you select parts of a DVD or VCD (MENU OFF mode) so that you can quickly find the section at a later time.

Using the Bookmark Function (DVD/VCD)



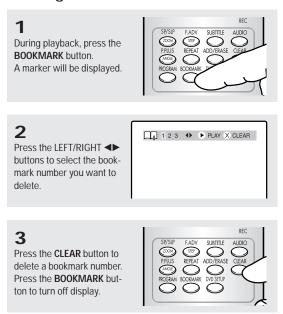
Recalling a Marked Scene



Chapter Four: DVD Operation 4.14

DVD OPERATION

Clearing a Bookmark

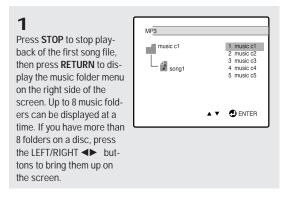


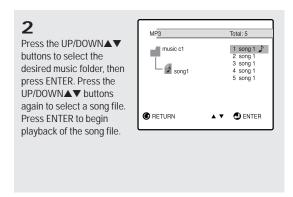
- Up to three scenes may be marked at the same time.
- When in VCD 2.0 mode (Menu On mode), this function does not work.
- Depending on the disc, the Bookmark function may not work.

MP3 Play

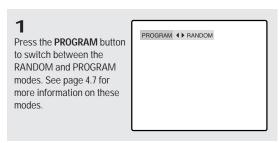
When an MP3 Disc is inserted into the DVD player, the first song file of the first folder plays.

MP3 Play Function





Program/Random playback



Notes:

- A musical note is displayed next to the file currently playing.
- Press the REPEAT button to hear only music continuously and press it once again to release.

DVD OPERATION

CD-R MP3 discs

In the case of CD-R MP3 discs, please follow all the recommendations for CD-R above, plus the comments below:

Your MP3 files should be ISO 9660 or JOLIET format.
 ISO 9660 format and Joliet MP3 files are compatible with Microsoft's DOS and Windows, and with Apple's Mac. These two formats are the most widely used.

When naming your MP3 files do not exceed 8 characters, and place ".mp3" as the file extension.

General name format of: Title.mp3. When composing your title, make sure that you use 8 characters or less, have no spaces in the name, and avoid the use of special characters including: $(.,/,\setminus=,+)$.

Use a decompression transfer rate of at least 128 kb/sec (kilobytes/second) when recording MP3 files.

Sound quality with MP3 files basically depends on the rate of compression/decompression you choose. Getting audio CD quality sound requires an analog/digital sampling rate, that is conversion to MP3 format, of at least 128 kb/sec and up to 160 kb/sec. However, choosing higher rates, like 192 kb/sec or more, only rarely give better sound quality. Conversely, files with sampling rates below 128 kb/sec will not be played properly.

• Do not try recording copyright protected MP3 files.

Certain "securized" files are encrypted and code protected to prevent illegal copying. These files are of the following types: Windows MediaTM (registered trade mark of Microsoft Inc) and SDMI^M (registered trade mark of The SDMI Foundation). You cannot copy such files.

• Your DVD player only accepts one level of file directory.

Consequently you must choose:

- either to save all your MP3 recording files at the root of the disc;
- and/or create folders in the directory for each artist or music type (e.g. classical, rock, jazz, etc)

• Important:

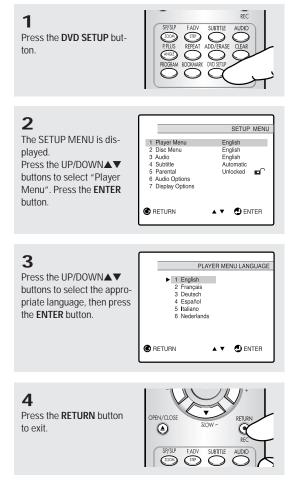
The above recommendations cannot be taken as a guarantee that the DVD player will play MP3 recordings, or as an assurance of sound quality. You should note that certain technologies and methods for MP3 file recording on CD-Rs prevent optimal playback of these files on your DVD player (degraded sound quality and in some cases, inability of the player to read the files).

Setting up the Language Features

If you set the player menu, disc menu, audio and subtitle language in advance, it will come up automatically every time you watch a movie.

Using the Player Menu

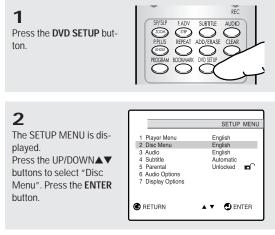
Use the Player preference menu to select the language for the player's on-screen displays.

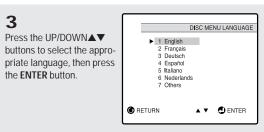


DVD OPERATION

Using the Disc Menu Language

Use the Menu preference menu to select the language you want a DVD's disc menu to be displayed in.





◀ If the selected language is not recorded on the disc, the original pre-recorded language is selected.

4.19 Chapter Four: DVD OPERATION

4

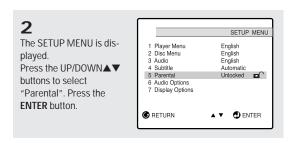
to exit.

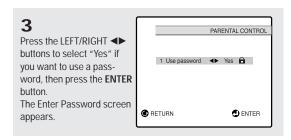
Press the **RETURN** button

Setting up the Parental Control

The Parental Control function works in conjunction with DVDs that have been assigned a rating - which helps you control the types of DVDs that your family watches. There are up to 8 rating levels on a disc.

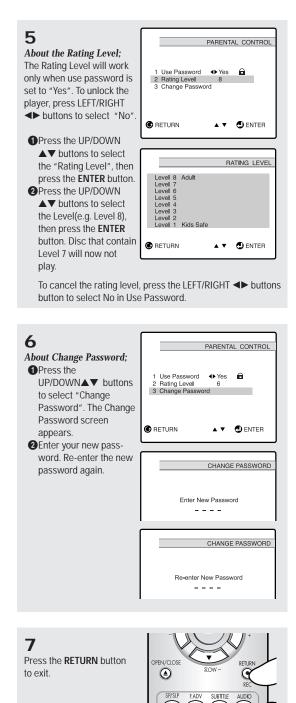






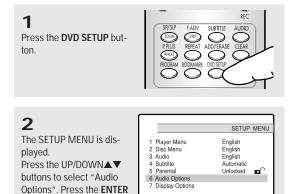


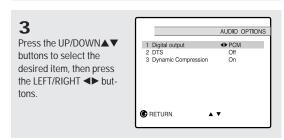
DVD OPERATION



4.21 Chapter Four: DVD Operation

Setting up the Audio Options





C RETURN



• Digital output

button.

PCM: Converts to PCM(2CH) 48kHz/16Bit audio. Select PCM when using the Analog Audio Outputs.

Bitstream: Converts to Dolby Digital BITSTREAM - 5.1CH (if MPEG-2, 7.1CH). Select BIT-STREAM when using the Digital Audio Output.

• DTS

On: Outputs DTS BITSTREAM via digital output only. Select DTS when connecting to a DTS DECODER.

Off: Doesn't output digital signal.

• Dynamic Compression

On: To select dynamic compression.
Off: To select the standard range.

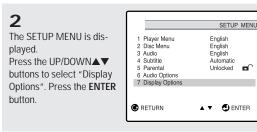
Manufactured under license from Dolby Laboratories. "Dolby" and the double-D symbol are trademarks of Dolby Laboratories. Confidential unpublished works. ©1992-1997 Dolby Laboratories Inc. All rights reserved.

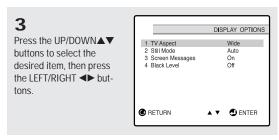
"DTS" and "DTS Digital Out" are trademarks of Digital Theater Systems, Inc.

Chapter Four: DVD Operation 4.22

Setting up the Display Options









• TV Aspect

4:3 Letter Box : Select when you want to see the total 16:9 ratio screen DVD supplies, even

though you have a TV with a 4:3 ratio screen. Black bars will appear at the top

and bottom of the screen.

4:3 Pan Scan : Select this for conventional size TVs when you want to see the central portion

of the 16:9 screen. (Extreme left and right side of movie picture will be cut off.)

16:9 Wide: You can view the full 16:9 picture on your widescreen TV.

• Still Mode

Field: Select this feature when the screen shakes in the Auto mode.

Frame: Select this feature when you want to see small letters more clearly in the Auto

mode.

Auto: When selecting Auto, Field/Frame mode will be automatically converted.

Screen Messages

Use to turn on-screen messages on or off.

• Black Level

Adjusts the brightness of the screen. (On/Off)

4.23 Chapter Four: DVD Operation

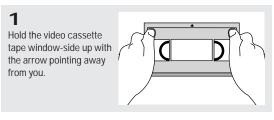
Chapter Five

VCR OPERATION

In this chapter, you will learn how to play a video cassette tape, how to use the time counter and memory stop features, and how to record a program as you are watching TV.

Inserting and Ejecting a Video Cassette Tape

To insert a video cassette tape,



■ Don't try to insert a tape upside down or backwards.

Use only video tapes labeled "VHS." European PAL VHS video tapes and S-VHS pre-recorded tapes aren't compatible with this unit. Choose brand name, high quality tapes for best results.

■ If the power is off when you insert a tape, the TV turns on automatically.

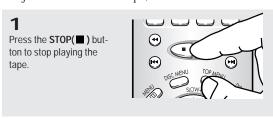
If the safety tab of your video tape has been removed, the tape begins to play automatically. You don't have to press PLAY. For more information on the safety tab, see page A.3.

Gently push the tape through the compartment door until you feel the VCR pull it.

The VCR loads the tape

To eject a video cassette tape,

automatically.



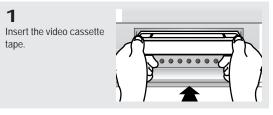
■ When you're finished playing a pre-recorded video tape, it's best to rewind it to the beginning and remove it from the VCR to protect it from wear and tear.



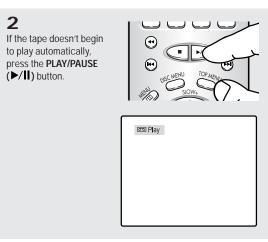
■ After ejecting a tape, you should remove it completely from the compartment and turn off the VCR.

Playing a Pre-Recorded Video Cassette Tape

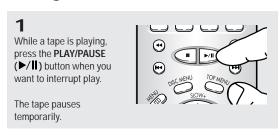
Playing the Tape



■ For information on inserting a video tape, see page 5.1.



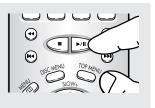
Pausing



■ The VCR does not play sound while a video tape is paused.

See "Using Automatic Tracking" on the next page.

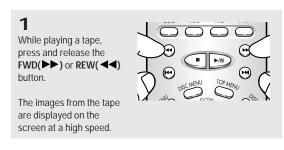
If the tape is still paused after five minutes, the TV/VCR automatically play the tape and switches to the TV mode to protect the video heads from excessive wear.



5.2 Chapter Five: VCR Operation

Using Picture Search

Picture search lets you quickly search a pre-recorded video tape for a particular scene.



■ For information on inserting and playing a tape, see pages 5.1 and 5.2.

There's no sound while you search for a picture at high speeds.

There may be some horizontal streaks on the screen while you search.

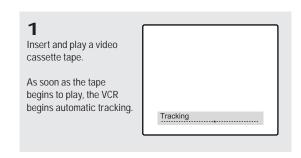
This technique is good if you're searching through only a small amount of tape. If you want to search through a large amount of tape, stop the tape before pressing FF or REW.



Using Automatic Tracking

at regular speed.

Automatic tracking adjusts a video tape's tracking automatically in just a few seconds.



◆ For information on inserting and playing a tape, see pages 5.1 and 5.2.

The tracking display will appear the first time a tape is played after being placed in the VCR, when there is a change in tape speed, or when you press the TRK buttons.

■ These two buttons can also be used to do vertical lock control.



Vertical Lock ControlTo reduce vertical jitter of the image

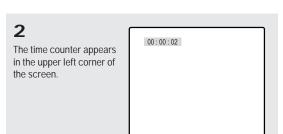
in STD.L mode.

Using the Time Counter

The time counter allows you to keep track of how much time (in hours, minutes, and seconds) has elapsed on the video tape you're watching. The counter can also be useful if you want to find a specific point on a pre-recorded tape.



→ For information on inserting and playing tapes, see pages 5.1 and 5.2.



■ The counter displays time only for recorded sections of tape. Blank tapes or blank sections of tapes do not affect the counter display.

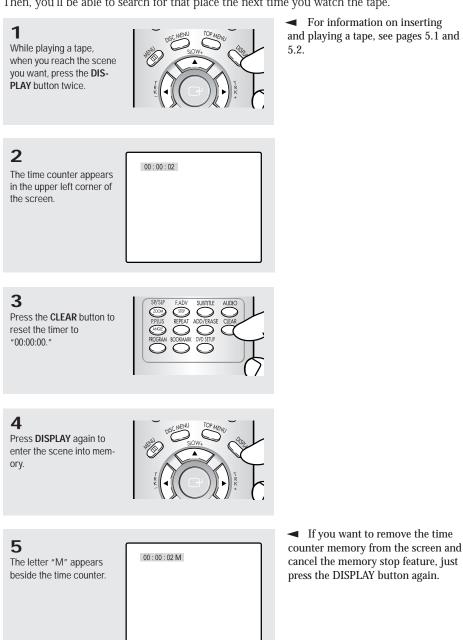


→ The VCR automatically resets the counter to "00:00:00" when you eject a tape.



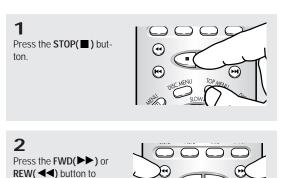
Using Memory Stop

Memory stop makes it easy for you to find a particular scene in a video tape. The VCR automatically stops rewinding or fast forwarding when the memory counter is at "00:00:00," so you simply need to mark the desired scene as "00:00:00." Then, you'll be able to search for that place the next time you watch the tape.

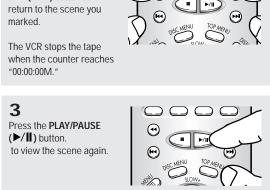


Chapter Five: VCR Operation $\, {f 5}.5 \,$

To return to the scene you marked,

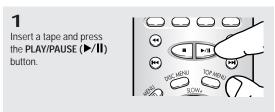


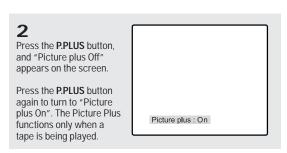
■ For this feature to work, the time counter and the letter "M" must still be on the screen. If this isn't the case, press the DISPLAY button until the time counter and the letter "M" are both on the screen.



Using P.PLUS

Press P.PLUS to compensate for a poor rental tape.





■ If the tape is ejected and reinserted, the Picture Plus feature will be Off.

5.6 CHAPTER FIVE: VCR OPERATION

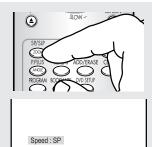
Recording TV Programs As You Watch

Recording

1

With your VCR turned on, and with a tape in the unit, press the **SP/SLP** button.

The tape speed appears in the the screen.

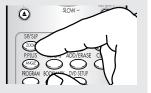


▼ For information on inserting a video tape, see page 5.1.

Be sure the record safety tab is in place. For information on the record safety tab, see page A.2.

2

Press the **SP/SLP** button repeatedly until the speed you want (SLP or SP) appears.



■ SP (Standard Play) is the most common speed for recording. For more information on tape speeds, see page A.2.

3

Select the TV channel you want by pressing the CH ▲ or CH ▼ button or by using the number buttons.



■ If you are using the number buttons to select the channel, press 0 before a single-digit channel number. For example, to select channel 5, press 0, 5.

4

Press the **REC** button. The record indicator on the control panel illuminates and the VCR begins recording.

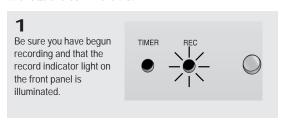


Notes:

- The VCR automatically stops recording and rewinds when it reaches the end of the tape.
- Press the STOP button at any time to stop recording.
- We don't recommend changing tape speeds while a recording is in progress. Doing so may cause distortion of the picture during playback.
- When you're finished recording, rewind the tape to the beginning and remove it from the VCR to protect the tape.
- When pressing the REC button on the front panel during DVD playback, the DVD will be recorded on the VCR tape. If your DVD title has been equipped with a Copy Protect technology, it can't be recorded on the VCR tape.
- You can play a DVD by switching into the DVD mode during channel recording.
- You can't play a DVD by switching into DVD mode during A/V recording.
- Mode Switching doesn't operate during recording in DVD mode.

Editing While Recording

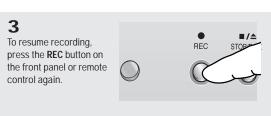
You can edit while recording, selecting only those scenes you want to record from the current television program. This is especially helpful if you want to record a program without the commercials.



■ For information on recording, see page 5.6.



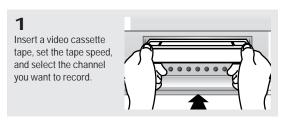
■ After ten minutes in the pause mode, the VCR automatically stops the tape and switches to TV mode to protect the video heads from excessive wear. If this happens, press REC to resume recording.



Using Advanced Recording Features

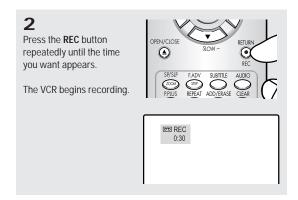
Using One-Touch Recording

One-touch recording (OTR) lets you record television programs with the touch of a button. You can even program the length of time (up to four hours) that you want to record.



■ For information, see "Recording Programs As You Watch" on page 5.7

The VCR won't record on a video cassette tape if the record safety tab on the tape has been removed. For information on the record safety tab, see page A.3.



Your recording time options are: 30 minutes, 1 hour, 1 hour and 30 minutes, 2 hours, 3 hours, or 4 hours.

You can increase the length of time you want to record at any time during the recording process by pressing the REC button again and choosing additional time.

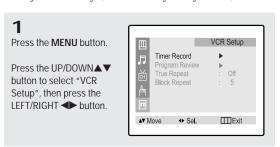
If you want to stop recording before the time is up, press the REC button until the OTR display shows "0:00." The recording stops after a few seconds. Or, press the POWER button on the front panel, then immediately press the STOP/EJECT button.

Note: In DVD mode, the OTR function doesn't operate with the REC button on the front panel. A normal recording only operates.

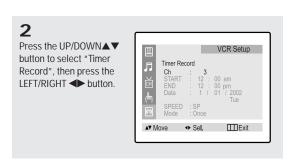
Recording at a Later Time

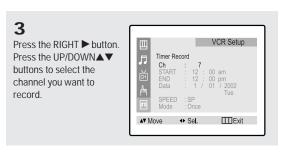
You can set the built-in timer for unattended recording of up to eight different TV programs. The timer can turn on the TV at the time you select, record for a selected length of time, and then turn off the TV – all without you being there.

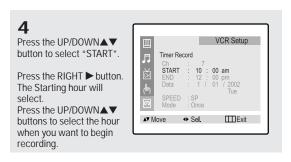
You can also choose to record a program one time, daily (every day, Monday through Friday), or weekly (the same day every week.)



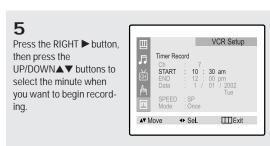
■ The clock must be set to the correct time and date before you program the timer. For more information on setting the clock, see page 3.19 and 3.20.



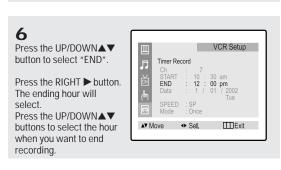




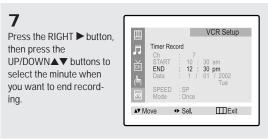
5.10 Chapter Five: VCR Operation



■ The VCR automatically selects am or pm for the starting time.



■ The VCR automatically selects am or pm for the ending time.



Ress the RIGHT ▶ button.
The month will select.
Press the UP/DOWN ▲▼
buttons to select the
month when you want to
begin recording.



Press the RIGHT ▶ button, then press the UP/DOWN ▲ ▼ buttons to select the day when you want to begin recording.

VCR Setup

Timer Record

Ch : 7

START : 10 : 30 am

EN START : 10 : 12 : 30 pm

Data : 8 / 07 / 2002

Wed

SPEED : SP

Mode : Once

▼ Move ◆ Sel. IIIIExit

■ If you enter two program times that overlap, a program overlap warning appears on the TV screen, along with instructions for fixing the overlap.

The REC indicator on the front panel of the VCR is lit when program times are stored.

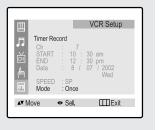
Chapter Five: VCR Operation 5.11

Press the UP/DOWN▲▼ button to select "SPEED", then press the LEFT/RIGHT ◆ buttons to select speed at which you want to record.

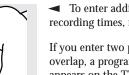


■ For more information on selecting tape speeds, see pages 5.6, 5.7, and A.2.

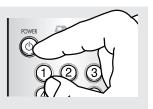
11 Press the UP/DOWN▲▼ button to select "Mode", then press the UP/DOWN▲▼ buttons to select "Once", "Wkly", or "Daly".



Press the MENU button to exit the menu system and return to normal viewing.



13
Press the POWER button to turn off the VCR.



■ To enter additional program recording times, repeat steps 1-11.

If you enter two program times that overlap, a program overlap warning appears on the TV screen, along with instructions for fixing the overlap.

The timer indicator on the front panel of the TV illuminates when program times have been stored.

The TV should be turned off to record the programs you've chosen.

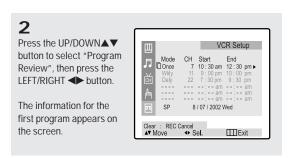
IMPORTANT:

- The TV should be off to record the programs you've chosen. But, if you are recording a channel that comes through a cable box, be sure to leave the cable box turned on and tuned to the channel you want to record.
- When a timer recording is in progress, there is no picture on the monitor because the
 power is off. If you want to watch the channel while it's being recorded, press POWER
 on the remote control only.
- One-time timer programs clear from memory automatically when the recording is finished. Daily and weekly programs remain in the timer until you remove them.
 If power to the TV is interrupted, timer program will be removed from memory.
 The clock and calendar, however, must be reset.

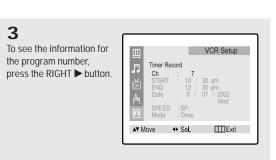
Using Program Review

Program Review allows you to review all of the programmed recordings currently stored in the VCR's memory and to remove a programmed recording quickly and easily.

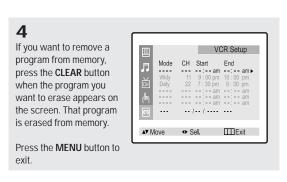




→ Program Review is only available if you have programmed your VCR to record at a later time.



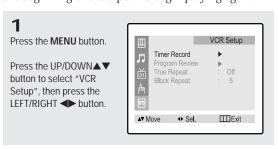
■ If you're recording through a cable box, the Program Review screen displays the output channel of the cable box as the channel number to be recorded.



■ The VCR is equipped with a program memory backup that saves all the timer program information if the power to the VCR is interrupted. If the unit has been without power, all of the timer program information will be disabled, until you reset the clock. When the clock is reset, the programs will be restored.

Using True Repeat

You can set your VCR to automatically repeat a tape or a section of tape. When you use True Repeat, your VCR will play until it reaches the end of a tape. Then, it will rewind to the beginning of the tape and begin playing again.



■ For information on viewing the main menu, see page 3.1. For information on viewing the VCR setup menu, see page 5.10.

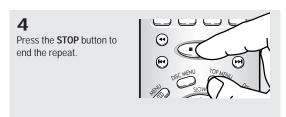


Insert and play a pre-recorded video cassette tape.

The VCR will play the tape until it reaches a the end of the tape. Then, the VCR will stop the tape, rewind it to the beginning, and begin playing again.

■ For information on inserting and playing a tape, see pages 5.1 and 5.2.

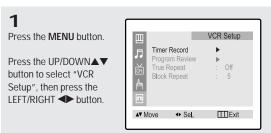
If the VCR reaches an unrecorded section of tape before it reaches the end, it will search forward and check the tape again. If it finds a recorded section of tape, it will begin playing. If the tape is still blank, it will continue to search forward, until it reaches the end of the tape.



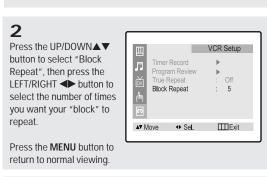
5.14 Chapter Five: VCR Operation

Using Block Repeat

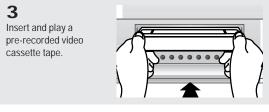
Block repeat allows you to repeat a section of tape that you select. You can repeat this section of tape (the "block") from one to ten times, or endlessly.



You can choose to have your "block" repeat from one to ten times, or endlessly.



■ For information on inserting and playing a tape, see pages 5.1 and 5.2.



■ "Repeat" section should be set up at a minimum five-second interval.



■ The word "Repeat" will appear on the screen.

To stop block repeat, press the STOP, or POWER buttons. You can also cancel block repeat by fast forwarding or rewinding to a point outside the "block."

The VCR will rewind the tape to beginning of the block and repeat it.

When you reach the end of the "block," press the

REPEAT button again.

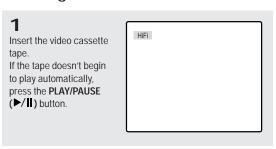
The VCR will repeat the block as many times as the number you set in step 2.

Chapter Five: VCR Operation 5.15

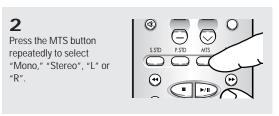
Using the HiFi Stereo

You can record or listen to a program in HiFi stereo.

Selecting the HiFi Mode



→ HiFi: High Fiedlity which produces better sound than standard stereo VCR.



MTS Recording / Monitor Mode

Type of broad	Display on	Stereo/SAP	Hi-Fi audio tack (2-channel)		Normal audio
	the TV screen	Selection	L-channel	R-channel	track
Regular	None	Invalid	Mono	Mono	Mono
(Normal audio)					
Stereo broadcast	Stereo	Invalid	L	R	L+R
Bilingual broadcast	SAP	Stereo	Main audio program	Main audio program	Main audio program
		SAP	Sub audio program	Sub audio program	Sub audio progrma
Stereo & Bilingual	Stereo	Stereo	L	R	L+R
broadcast	SAP	SAP	Sub audio program	Sub audio program	Sub audio program

Video Dubbing

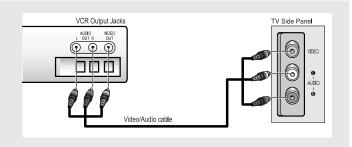
You can make a copy of another video cassette tape. This is called "dubbing." To dub, you need:

- your VCR,
- a separate VCR (or camcorder), and
- two A/V cables with connectors. (You can find these at most electronics supply stores.)

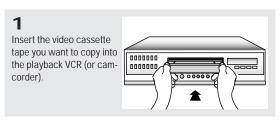
We recommend that you play the pre-recorded tape in the separate VCR (or camcorder) and record on your TV.

Making the Connections

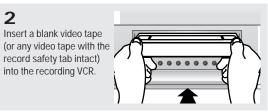
Attach one end of the first cable to the VIDEO/AUDIO OUT connector of the playback VCR (or camcorder) and the other end to the VIDEO/AUDIO IN connector of the TV.

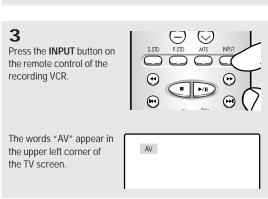


Video Dubbing



■ Important Warning: One Federal Court has held that unauthorized recording of copyrighted TV programs may be an infringement of copyright laws.





■ TheVCR will be recording from the incoming line rather than from the normal broadcast signal.

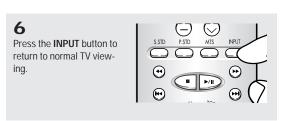
"AV" will remain on-screen until the PLAY button is pressed on the playback VCR.



To begin recording, simultaneously press the REC button on the recording TV's remote control and the PLAY/PAUSE (| II) button. on the playback VCR (or camcorder).

5

When you are finished, press the STOP(■) button on both the VCR (or camcorder) and the TV to stop recording.



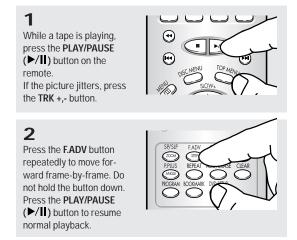
5.18 Chapter Five: VCR Operation

Using Special Playback Features

Your VCR provides you with special features that are available when you are playing a tape. These features are Frame Advance, and Slow Motion.

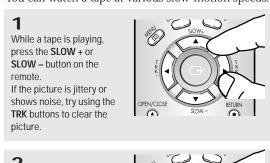
Frame Advance

Frame Advance allows you to watch a tape frame-by-frame.

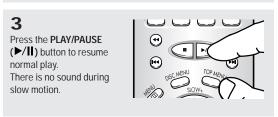


Slow motion

You can watch a tape at various slow-motion speeds.







■ It is normal to occasionally see some streaks or jitter during slow motion play.

If slow motion continues for more than five minutes, the VCR may play automatically to protect the tape and video heads.

Chapter Five: VCR Operation 5.19

Chapter Six

Troubleshooting

If the TV seems to have a problem, first try this list of possible problems and solutions. If none of these troubleshooting tips apply, then call your nearest service center.

Identifying TV Problems

Problem	Possible Solution	
Poor picture	Try another channel. Adjust the antenna. Check all wire connections.	
Poor sound quality	Try another channel. Adjust the antenna.	
No picture or sound	Try another channel. Press the TV/VIDEO button. Make sure the TV is plugged in. Check the antenna connections.	
No color, wrong colors or tints.	Make sure the program is broadcast in color. Adjust the picture settings. If the set is moved or turned in a different direction, the power should be OFF for at least 30 minutes.	
Picture rolls vertically.	Adjust the antenna. Check all wire connections.	
The TV operates erratically	Unplug the TV for 30 seconds, then try operating it again.	
The TV won't turn on.	Make sure the wall outlet is working.	
Disc does not play.	Ensure that the disc is installed with the label side facing up. Check the region number of the DVD. This player cannot play CD-ROMs, DVD-ROMs, CD-R, etc. Insert a DVD, a VIDEO-CD or a CD.	
5.1 channel sound is not being reproduced.	 5.1 channel sound is reproduced only when the following conditions are met.: 1) The DVD player is connected with the proper amplifier. 2) The disc is recorded with 5.1 channel sound. Check whether the disc being played has the "Dolby 5.1 ch" mark on the outside. Check if your audio system is connected and working properly. 	

6.1 Chapter Six: Troubleshooting

Identifying DVD Problems

Problem	Possible Solution	
Disc does not play.	Ensure that the disc is installed with the label side facing up. Check the region number of the DVD. This player cannot play CD-ROMs, DVD-ROMs, CD-R, etc. Insert a DVD, a VIDEO-CD or a CD.	
5.1 channel sound is not being reproduced.	 5.1 channel sound is reproduced only when the following conditions are met.: 1) The DVD player is connected with the proper amplifier. 2) The disc is recorded with 5.1 channel sound. Check whether the disc being played has the "Dolby 5.1 ch" mark on the outside. Check if your audio system is connected and working properly. 	
The ⊘icon appears on screen.	The features or action cannot be completed at this time because: 1) The DVD's software restricts it. 2) The DVD's software doesn't support the feature (e.g., angles). 3) The feature is not available at the moment. 4) You've requested a title or chapter number or search time that is out of range.	
Disc Menu doesn't appear.	Check if the disc has a Menu.	
Playback mode differs from the Setup Menu selection.	Some of the functions selected in the Setup Menu may not work properly if the disc is not encoded with the corresponding function.	
The screen ratio can not be changed.	The Screen Ratio is fixed on your DVDs.	
No audio.	Make sure you have selected the correct Digital Output in the Audio Options Menu.	
If you experience other problems.	Go to the contents and find the section of the instruction book that contains the explanations regarding the current problem, and follow the procedure once again. If the problem still cannot be solved, please contact your nearest authorized service center.	

Identifying VCR Problems

Problem	Possible Solution
Unit won't turn on.	Make sure the unit is plugged into a working wall outlet. Press the POWER button.
Unit won't take video tape	Make sure the tape is window-side up with the arrow pointing away from you. Make sure there is no other tape in the compartment.
Unit didn't record a program.	Make sure the antenna or cable is connected and that the TV/VCR is receiving the broadcast signal. Make sure the record safety tab is intact.
Unit didn't record a timer program.	Make sure the unit was turned off. Check the programmed start and stop times. Make sure the time is set correctly.
There is no picture, the picture is distorted during video tape playback, or there is noise or streaks in the picture.	Adjust the tracking. Clean the video heads. Make sure there has been a recording on the tape.
You can't receive regular broadcasts.	Check the antenna or cable connections.
Rewind command doesn't work.	Make sure the VCR is not in pause mode. Make sure the tape hasn't already been rewound.
Fast forward command doesn't work.	Make sure the VCR is not in pause mode. Make sure the tape hasn't already been forwarded.
Picture is streaked during pause mode.	This is normal for SP and LP recordings.

Cleaning and Maintaining Your 3Way Combination Unit

With proper care, your 3way combination unit will give you many years of service. Please follow these guidelines to get the maximum performance from your 3way combination.

Placement

- Do not place the 3way combination near extremely hot, cold, humid or dusty places.
- Do not place the 3way combination near appliances with electric motors that create magnetic fields, such as vacuum cleaners.
- Keep the ventilation openings clear; do not place the 3way combination on a soft surface, such as cloth or paper.
- Place the 3way combination in a vertical position only.

Liquids

 Do not handle liquids near or on the 3way combination. Liquids that spill into it can cause serious damage.

Cabinet

- Never open the cabinet or touch the parts inside.
- Wipe your 3way combination with a clean, dry cloth. Never use water, cleaning fluids, wax, or chemicals.
- Do not put heavy objects on top of the cabinet.

Temperature

If your 3way combination is suddenly moved from a cold to a warm place, unplug
the power cord, and allow at least two hours for moisture that may have formed
inside the unit to dry completely.

Using Your 3Way Combination Unit in Another Country

If you plan to take your 3way combination with you to a foreign country, please be aware of the different television systems that are in use around the world. A 3way combination designed for one system may not work properly with another system due to differences in the 3way combination channel frequencies

Learning About Video Cassette Tapes

Choosing the Proper Tapes

Use only video cassette tapes marked VHS with this VCR. Choose good quality tapes for best results.

Caring for Video Cassette Tapes

- Keep the tapes away from direct sunlight, heat or extreme cold.
- Insert tapes with the window side up and the arrow pointing away from you.
- Do not subject tapes to violent vibrations or shocks.
- Never try to take apart or splice a video tape.
- Do not open the cassette, touch the tape, or put anything inside the video tape cartridge.
- Read the instructions supplied with a video tape

Choosing the Correct Recording Speed

Your VCR is equipped with variable tape speed. You can play or record a tape at:

- SP (Standard Play)—the fastest speed,
- **SLP** (Super Long Play)—the slowest speed.

When you are playing a tape, your VCR automatically selects the proper speed, even if segments of the tape have been recorded at a different speed.

When you are recording, the slower the tape speed you use, the longer the tape runs and the more program material it holds. SP provides the clearest record/playback picture, but special effects such as still picture work best in the SLP mode.

Use this chart to determine which tape speed to select when you are recording:

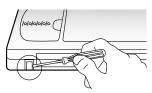
TAPE	SP	SLP
T-60	1hr.	3hrs.
T-120	2hrs.	6hrs.
T-160	2hrs. 40 mins.	8hrs.

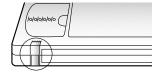
Using the Record Safety Tab

Most video cassette tapes have a safety tab that prevents accidental erasure. The safety tab is on the end of the tape opposite from where the arrow points.

The tab must be intact to record. You can record over and over on the same tape as long as the tab is intact. If you want to protect a tape from accidental erasure, break off the tab with a screwdriver, as shown here.

If you wish to erase a recorded tape or to record on a cassette with the tab removed, cover the hole with cellophane tape.





Sending Tapes to Another Country

Because various TV standards are used throughout the world, we recommend that you check for compatibility before sending your tapes to a foreign country. Tapes made on machines sold in the U.S.A. can be played back only on units that use the NTSC television system.

Specifications

Model	CXM2785TP/CXN2085TP
Voltage	AC 120V
Frequency of Operation	60Hz
Power Consumption	150 watts/130 watts
Dimension	CXM2785TP: 758 x 504 x 638 mm/29.84 x 19.84 x 25.12 inches
	CXN2085TP: 584 x 492 x 515 mm/22.99 x 19.37 x 20.28 inches
Weight	CXM2785TP: 47.2 kg/104.06 lbs
	CXN2085TP: 28.5 kg/62.83 lbs